

STATE OF ALASKA  
 DEPARTMENT OF NATURAL RESOURCES  
 DIVISION OF PARKS  
 AND  
 OUTDOOR RECREATION

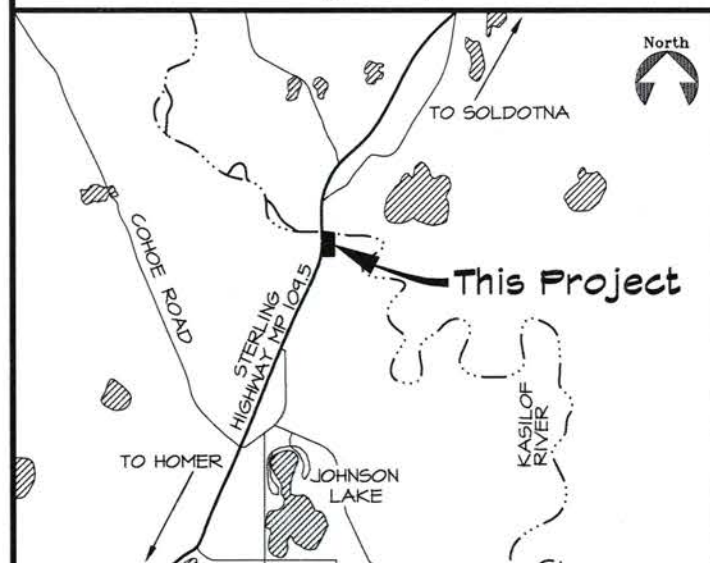
AS-BUILT  
 6/22/2016

KASILOF RIVER SRS  
 RIVERBANK RESTORATION

PROJECT NO.  
 73037-1

This Project is Funded in Part by the Alaska Sustainable Salmon Fund Program

Vicinity Map



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The following Division of Parks & Outdoor Rec. standard drawings apply to this project: None  
 The following D.O.T.(Highways) standard drawings apply to this project: None

STATE OF ALASKA  
 Department of Natural Resources  
 Division of Parks & Outdoor Recreation

Recommended:

\_\_\_\_\_  
 Rys Miranda, P.E.  
 Chief, Design and Construction

Date

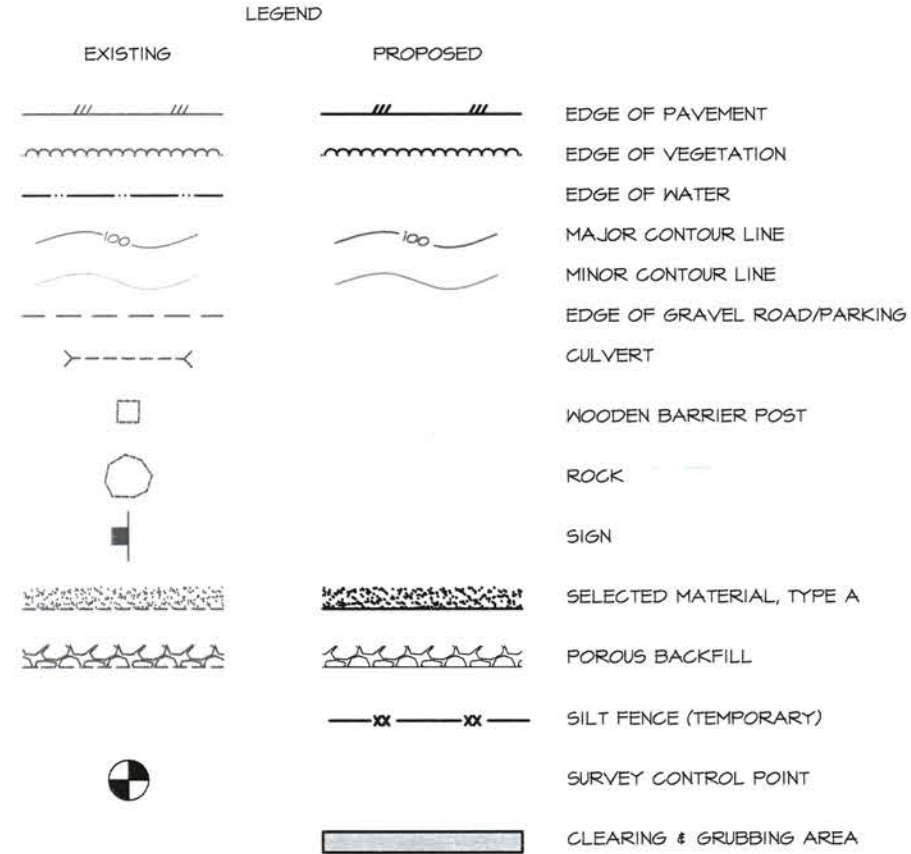
Approved:

\_\_\_\_\_  
 Ben Ellis  
 Director, Alaska State Parks

Date

BASIC BID - ESTIMATE OF QUANTITIES			
ITEM NO.	ITEM	UNIT	QUANTITY
201(3B)	CLEARING AND GRUBBING	L.S.	ALL REQ'D
505(5-6)	FURNISH 6 INCH STRUCTURAL STEEL PILE	L.F.	136
505(6-6)	DRIVE 6 INCH STRUCTURAL STEEL PILE	EACH	8
621(5)	VEGETATIVE MAT	S.Y.	<del>160</del> 178
621(6)	ROOT WAD REVETMENT	L.F.	100
621(7)	BRUSH LAYERING	L.F.	100
640(1)	MOBILIZATION AND DEMOBILIZATION	L.S.	ALL REQ'D
641(1)	EROSION SEDIMENT AND POLLUTION CONTROL ADMINISTRATION	L.S.	ALL REQ'D
641(2)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	C.S.	ALL REQ'D
641(3)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	C.S.	ALL REQ'D
642(2)	CONSTRUCTION SURVEYING	L.S.	ALL REQ'D
643(2)	TRAFFIC MAINTENANCE	L.S.	ALL REQ'D
647(6)	HYDRAULIC EXCAVATOR, 1 CY, 100 HP MINIMUM	HOUR	5
650(12)	ELP WALKWAY	L.S.	ALL REQ'D
650(12A)	STEEL STAIR TREAD	L.S.	ALL REQ'D
650(12B)	ALUMINUM STAIR TREAD	EACH	8
653(3)	ARTICULATED CONCRETE MAT	S.F.	<del>435</del> 661.7

<del>ADDITIVE ALTERNATE NO. 1 - ESTIMATE OF QUANTITIES</del>			
ITEM NO.	ITEM	UNIT	QUANTITY
<del>AAI 650(65)</del>	<del>ROCK REMOVAL</del>	<del>L.S.</del>	<del>ALL REQ'D</del>
<del>AAI 653(3)</del>	<del>ARTICULATED CONCRETE MAT</del>	<del>S.F.</del>	<del>188</del>



ABBREVIATIONS AND SYMBOLS

AA#1	ADDITIVE ALTERNATE 1
∅	DIAMETER
ε	CENTERLINE
C.S.	CONTINGENT SUM
E	EAST
ELEV.	ELEVATION
F.G.	FINISH GRADE
HSS	HOLLOW STRUCTURAL SECTIONS
INV	INVERT
L.S.	LUMP SUM
LB/LBS	POUND/POUNDS
MP	MILEPOST
N	NORTH
NE	NORTHEAST
NO.	NUMBER
NW	NORTHWEST
OC	ON CENTER
OHW	ORDINARY HIGH WATER
PCF	POUNDS PER CUBIC FOOT
PIP	PROTECT IN PLACE
REQ'D	REQUIRED
RT	RECTANGLE
SE	SOUTHEAST
S.F.	SQUARE FOOT
SQ	SQUARE
SRS	STATE RECREATION SITE
S.S.	STAINLESS STEEL
SW	SOUTHWEST
S.Y.	SQUARE YARD
TYP	TYPICAL
W	WEST

STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
 KASLOF RIVER SRS  
 RIVERBANK RESTORATION  
 PROJECT NO. 73057-1

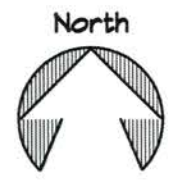
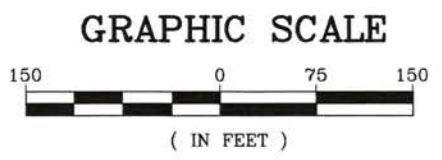
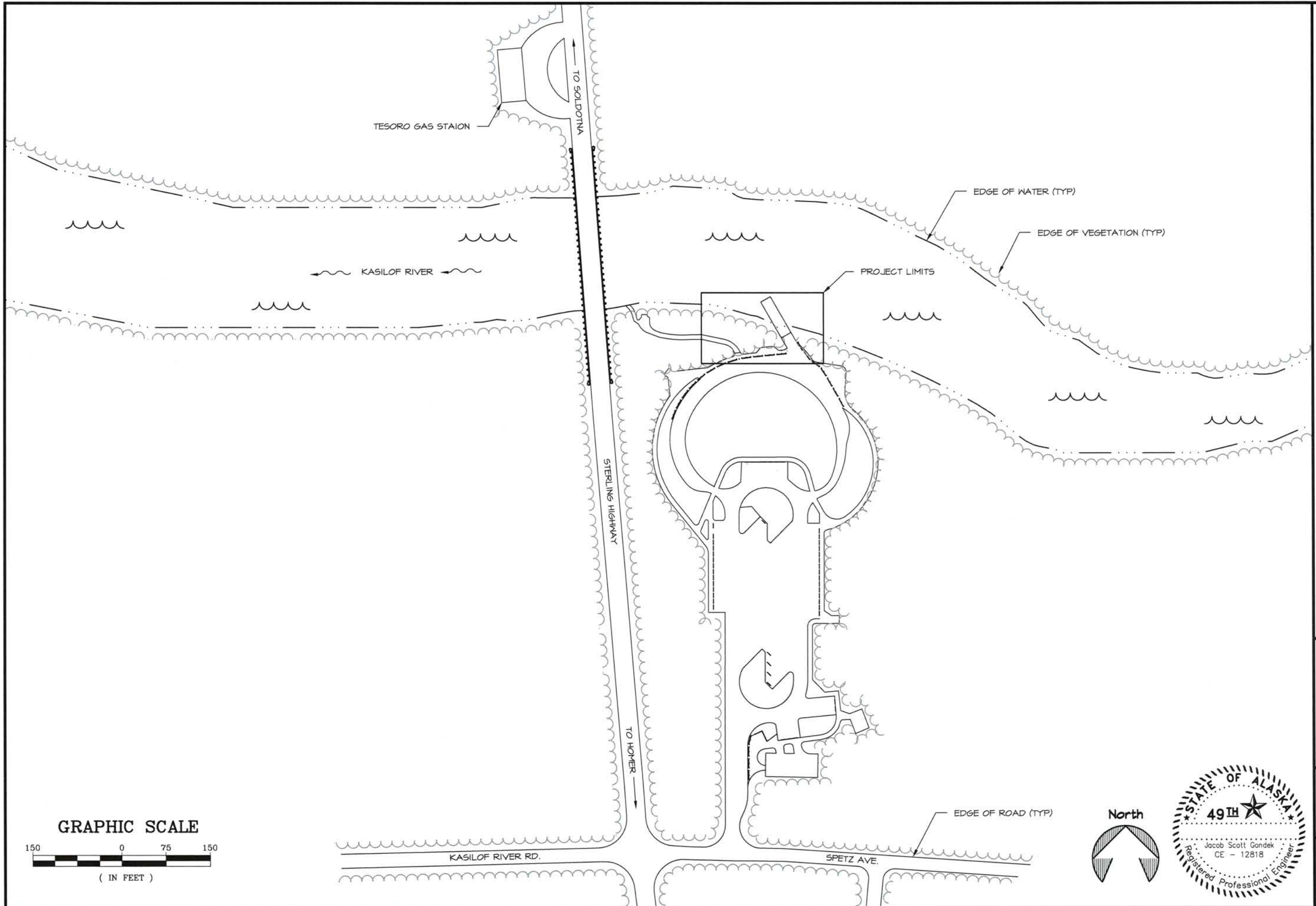
LEGEND, LIST OF ABBR., &  
 TABLE OF EST. FACTORS, &  
 EST. OF QUANTITIES



PREPARED: RDR  
 DRAWN: RDR  
 REVIEWED: JSG  
 DATE: MAR. 2016



SHEET  
 2  
 OF 15 SHEETS



STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES

KASILOF RIVER SRS  
RIVERBANK RESTORATION  
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SITE MAP



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REVIEWED: JSG  
DATE: MAR. 2016

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OF 15 SHEETS

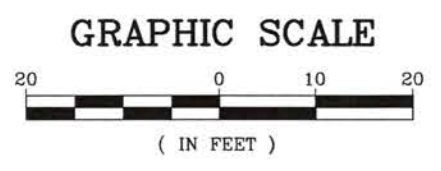
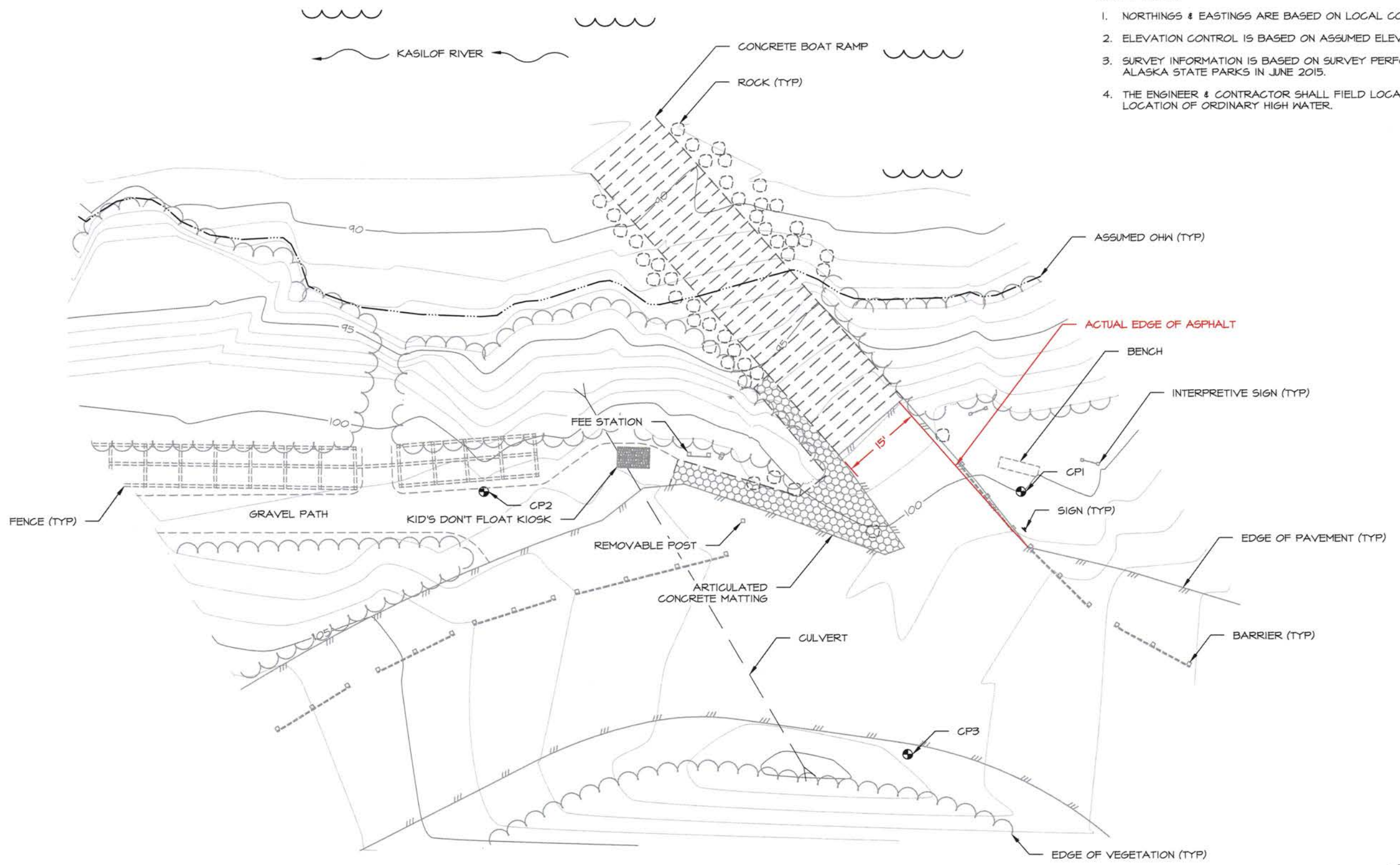


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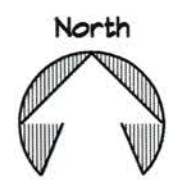
SHEET  
 4  
 OF 15 SHEETS

SURVEY NOTES:

1. NORTHINGS & EASTINGS ARE BASED ON LOCAL COORDINATES.
2. ELEVATION CONTROL IS BASED ON ASSUMED ELEVATION.
3. SURVEY INFORMATION IS BASED ON SURVEY PERFORMED BY ALASKA STATE PARKS IN JUNE 2015.
4. THE ENGINEER & CONTRACTOR SHALL FIELD LOCATE THE LOCATION OF ORDINARY HIGH WATER.



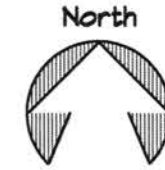
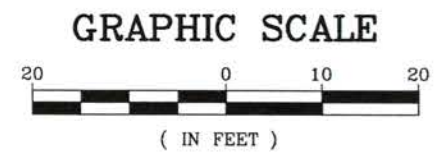
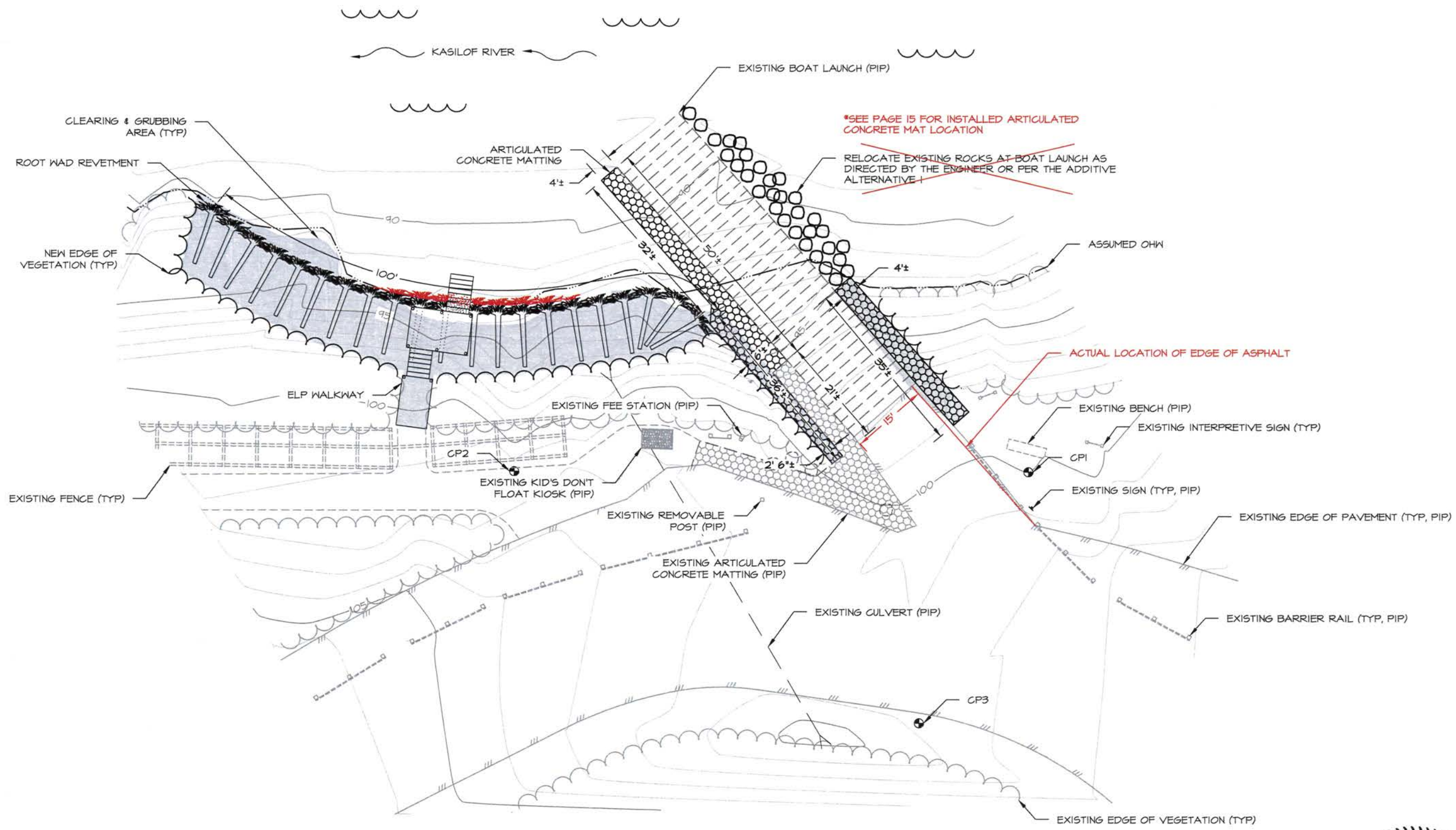
SURVEY CONTROL POINT SUMMARY - COORDINATE SYSTEM				
CONTROL POINT	NORTHING	EASTING	ASSUMED ELEVATION	DESCRIPTION
CP1	10,000.00	5,000.00	100.00'	REBAR
CP2	10,100.11	4,999.96	101.72'	REBAR
CP3	10,021.30	4,950.99	101.26'	REBAR





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DATE: MAR. 2016

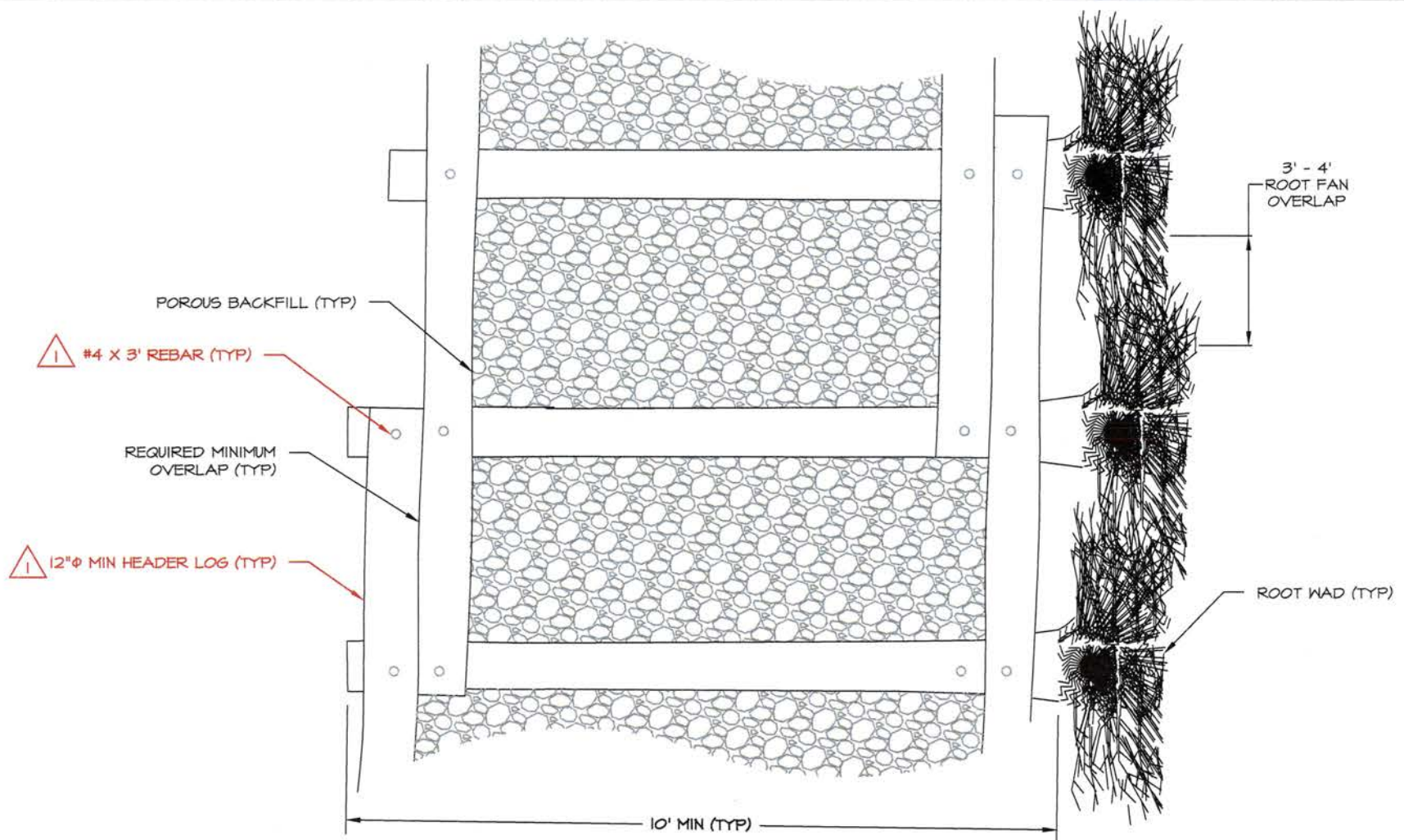
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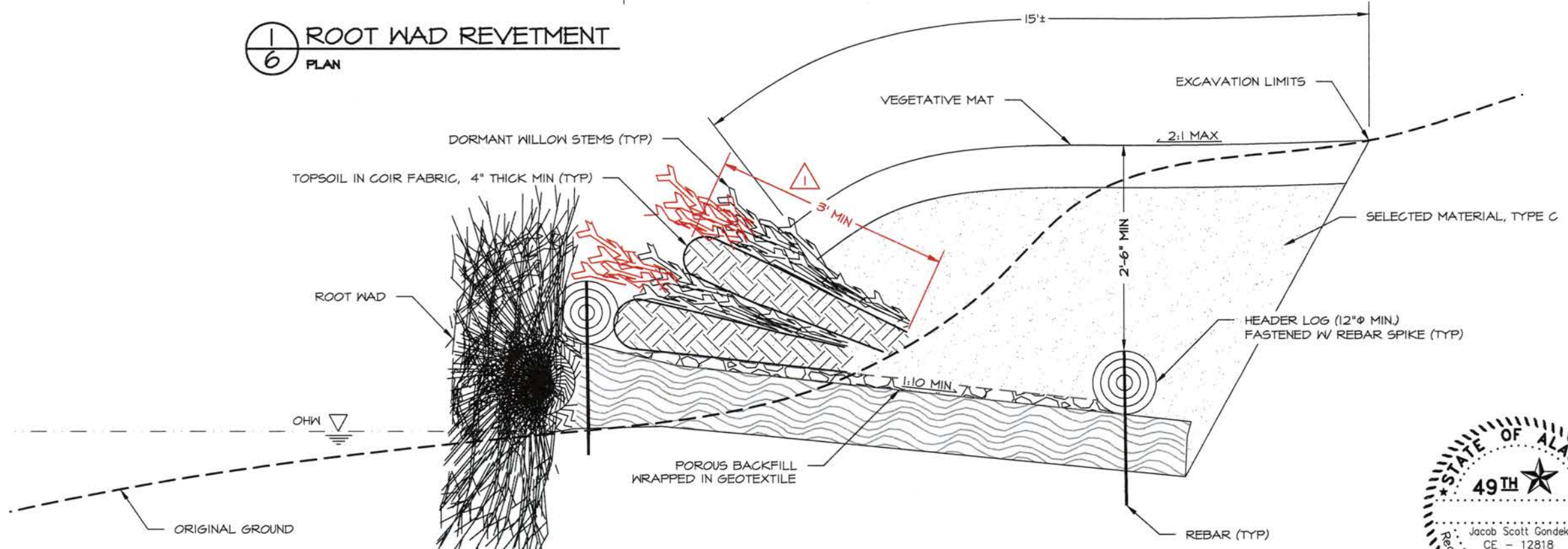


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OF 15 SHEETS



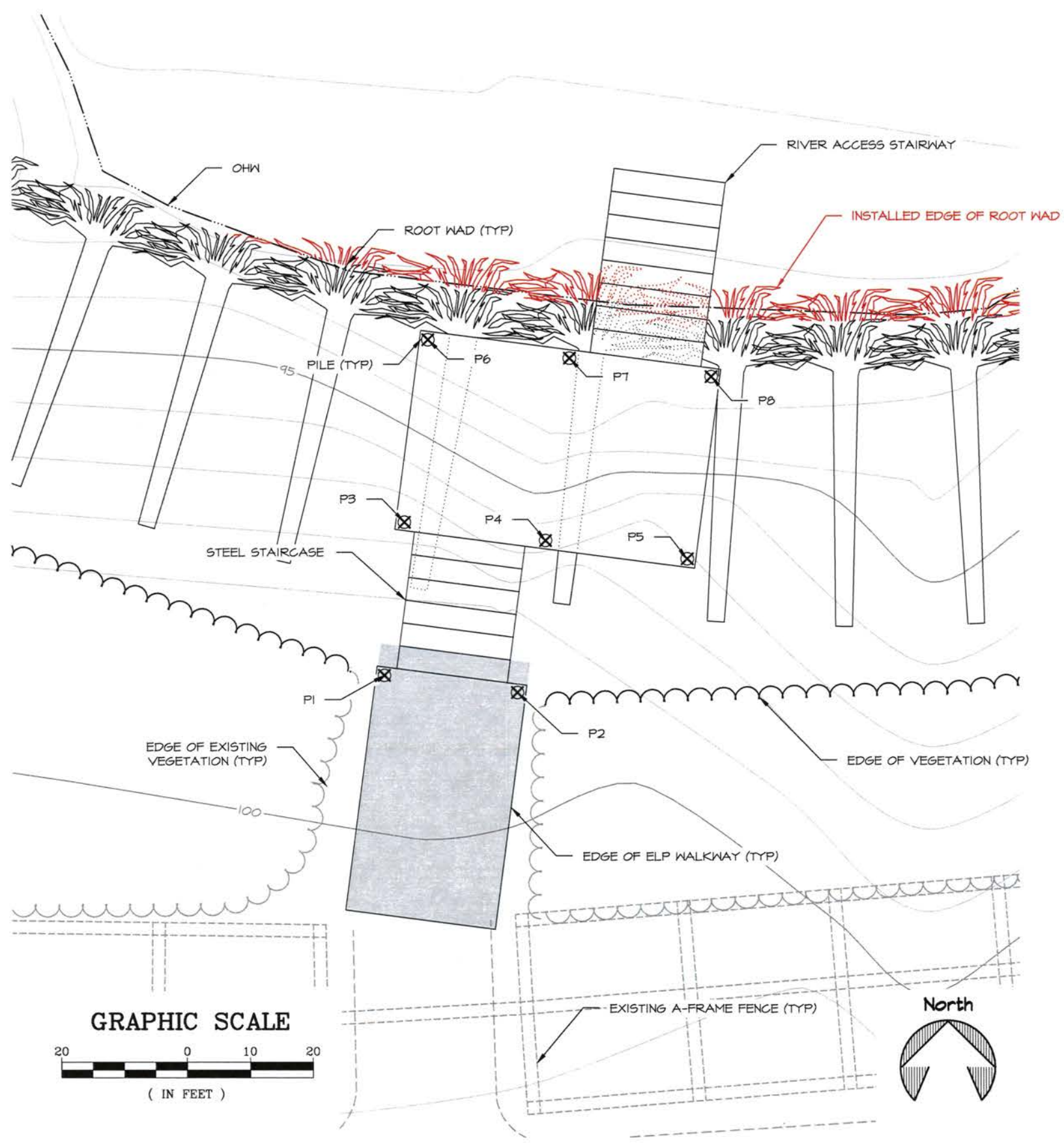
1  
6 ROOT WAD REVETMENT  
PLAN



2  
6 ROOT WAD REVETMENT  
TYPICAL SECTION

NOTES:  
1. NOT TO SCALE.  
2. ENGINEER & CONTRACTOR SHALL CONFIRM OHW ELEVATION PRIOR TO COMMENCING WITH ROOT WAD REVETMENT WORK.





PILE COORDINATES			
POINT #	NORTHING	EASTING	ELEVATION
P1	10121.46	5018.29	99.86
P2	10116.17	5017.60	99.86
P3	10120.66	5024.41	96.36
P4	10115.04	5023.68	96.36
P5	10109.42	5022.95	96.36
P6	10119.72	5031.68	96.36
P7	10114.10	5030.95	96.36
P8	10108.48	5030.22	96.36

- NOTES:
1. NORTHINGS, EASTINGS, AND ELEVATIONS ARE BASED ON AN ASSUMED COORDINATE SYSTEM SEE PAGE 4 FOR SURVEY CONTROL POINTS.
  2. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS.
  3. TOPO SHOWS ORIGINAL GROUND ONLY.
  4. ELEVATIONS IN TABLE ARE PILE CUTOFF ELEVATIONS.

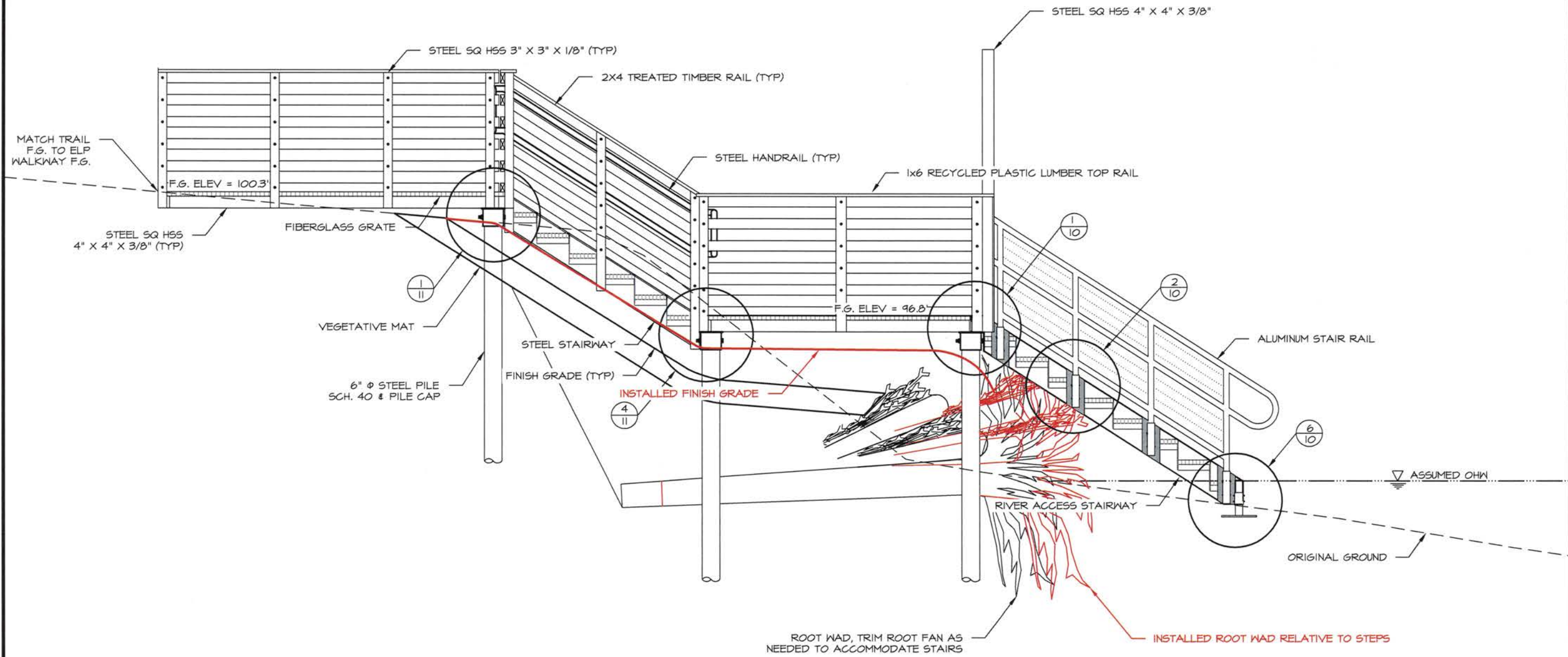
STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
 KASILOF RIVER SRS  
 RIVERBANK RESTORATION  
 PROJECT NO. 73057-1  
 ELP WALKWAY PILE LOCATIONS



PREPARED: RDR  
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 OF 15 SHEETS



NOTE: PILE HEIGHTS ARE APPROXIMATE, CONTRACTOR SHALL FIELD VERIFY DISTANCES. SEE PAGE 1 FOR SURVEY ELEVATION DATA.

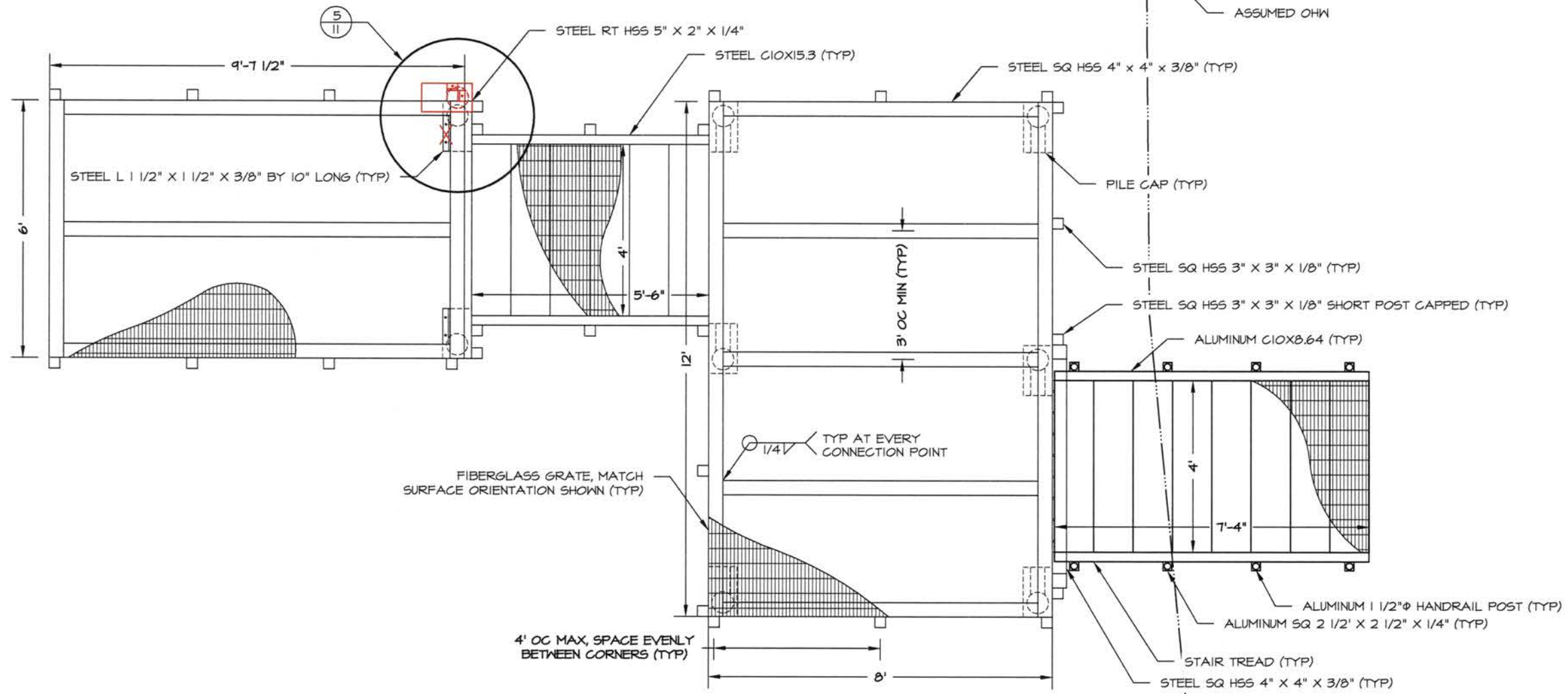


STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
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 PROJECT No. 73057-1  
 ELP WALKWAY  
 ELEVATION



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NOTES:  
 1. RAILING OMITTED FOR CLARITY.



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ELP WALKWAY & STAIRS  
 FRAMING PLAN



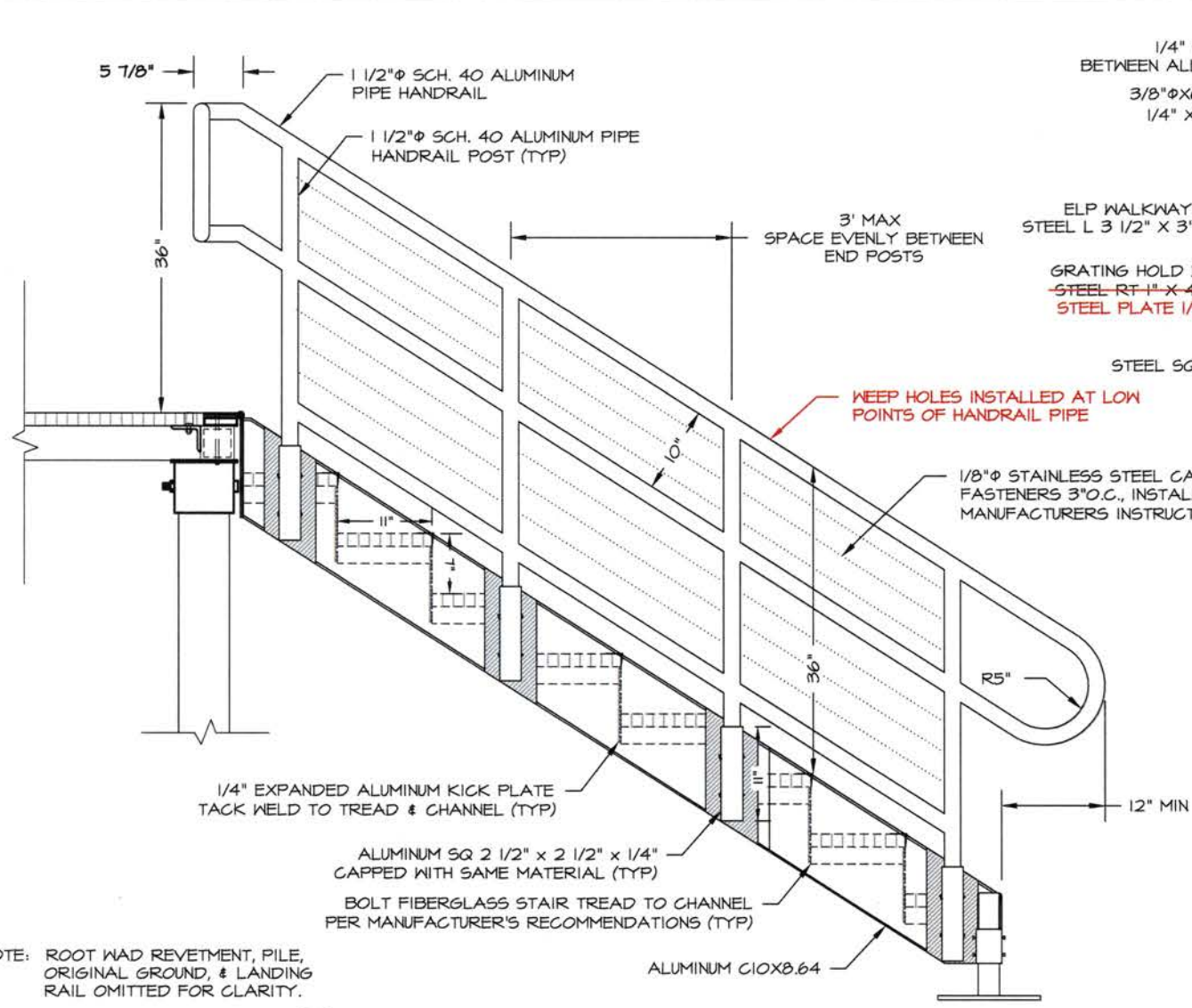
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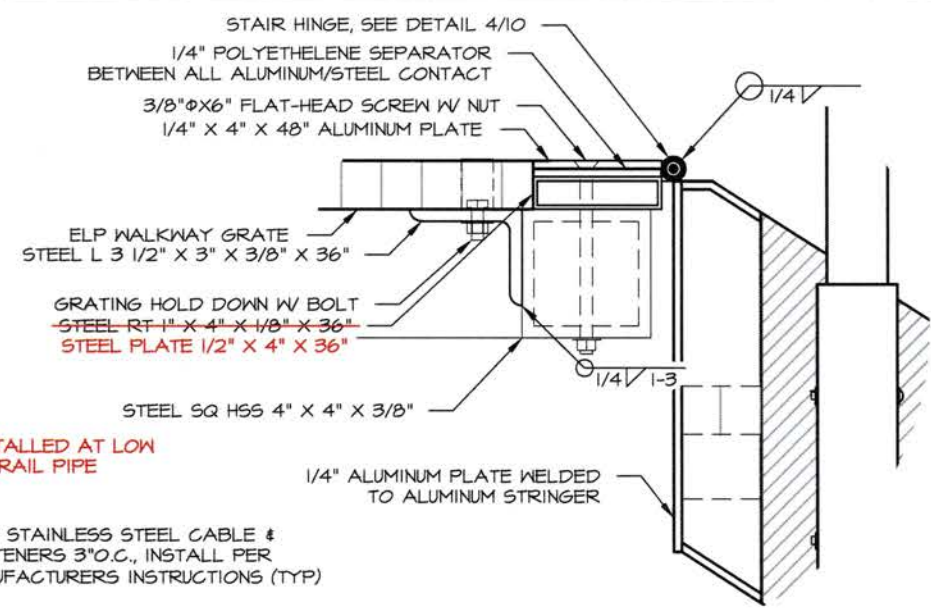


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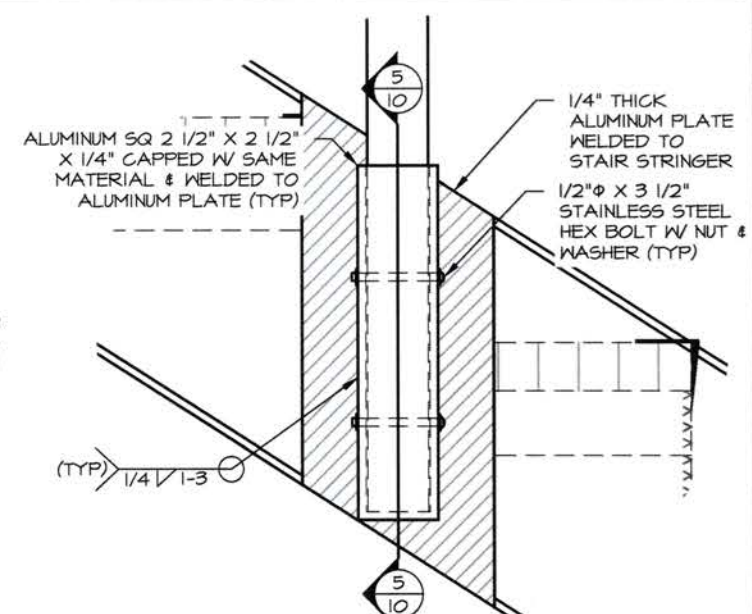
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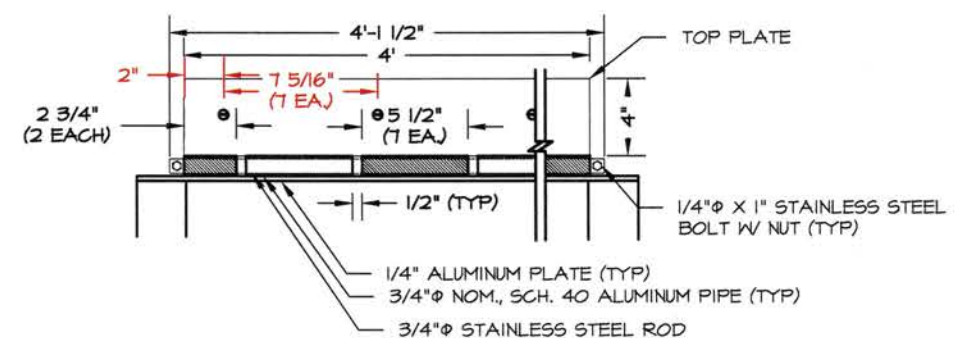
3 ALUMINUM STAIR ASSEMBLY  
ELEVATION



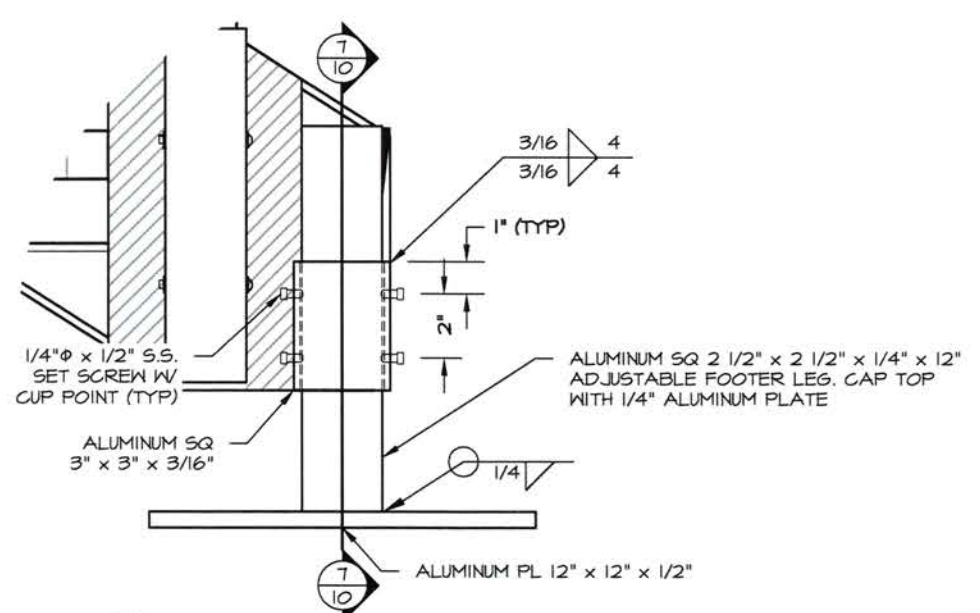
1 ALUMINUM TOP CONNECTION  
DETAIL



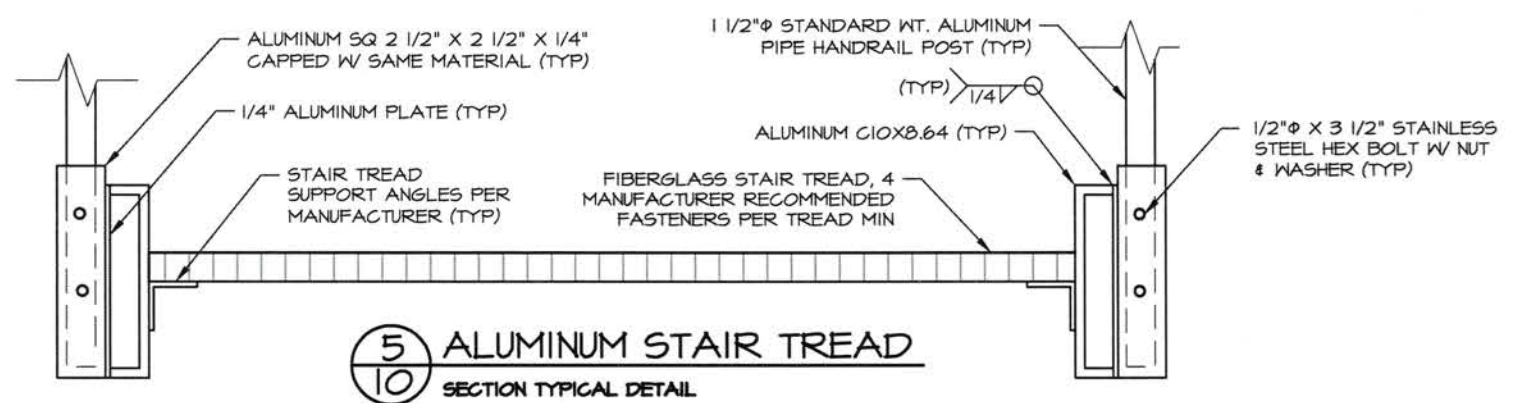
2 ALUMINUM STAIR RAIL BASE  
TYPICAL DETAIL



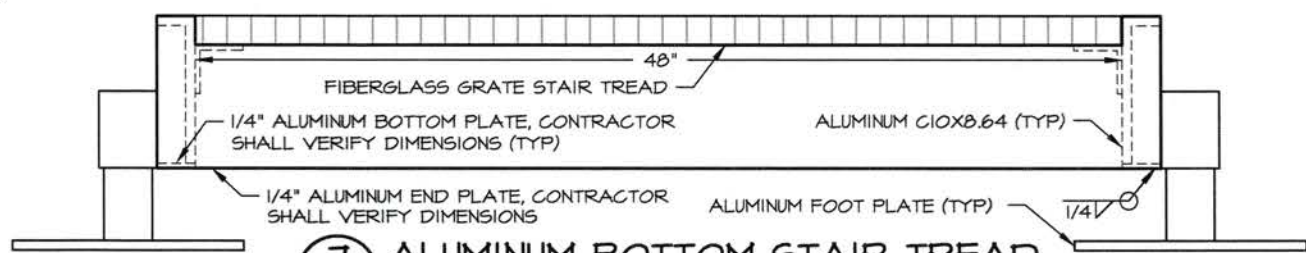
4 ALUMINUM STAIR TO STEEL BOARDWALK HINGE  
DETAIL



6 ALUMINUM FOOT PLATE  
DETAIL

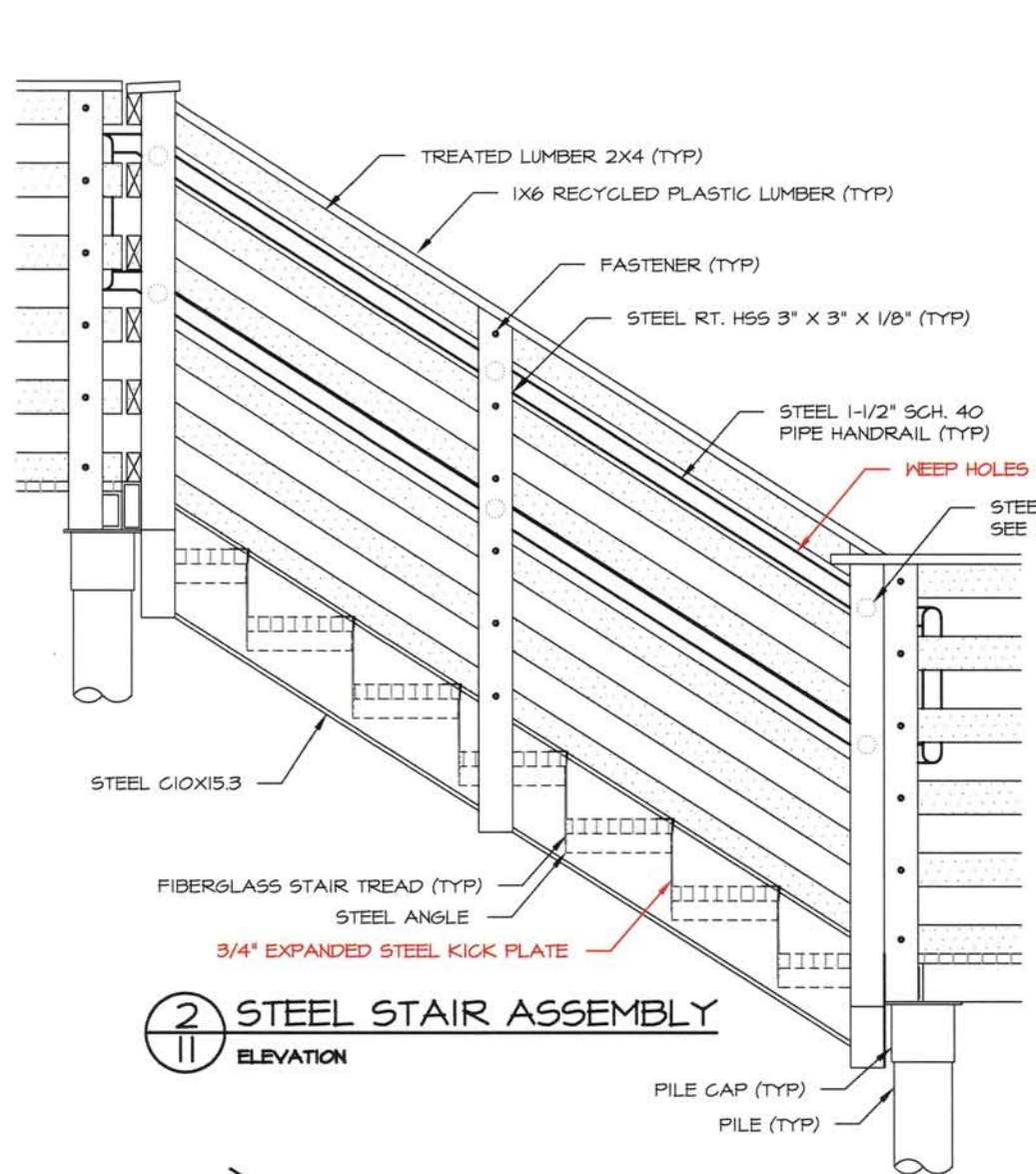


5 ALUMINUM STAIR TREAD  
SECTION TYPICAL DETAIL

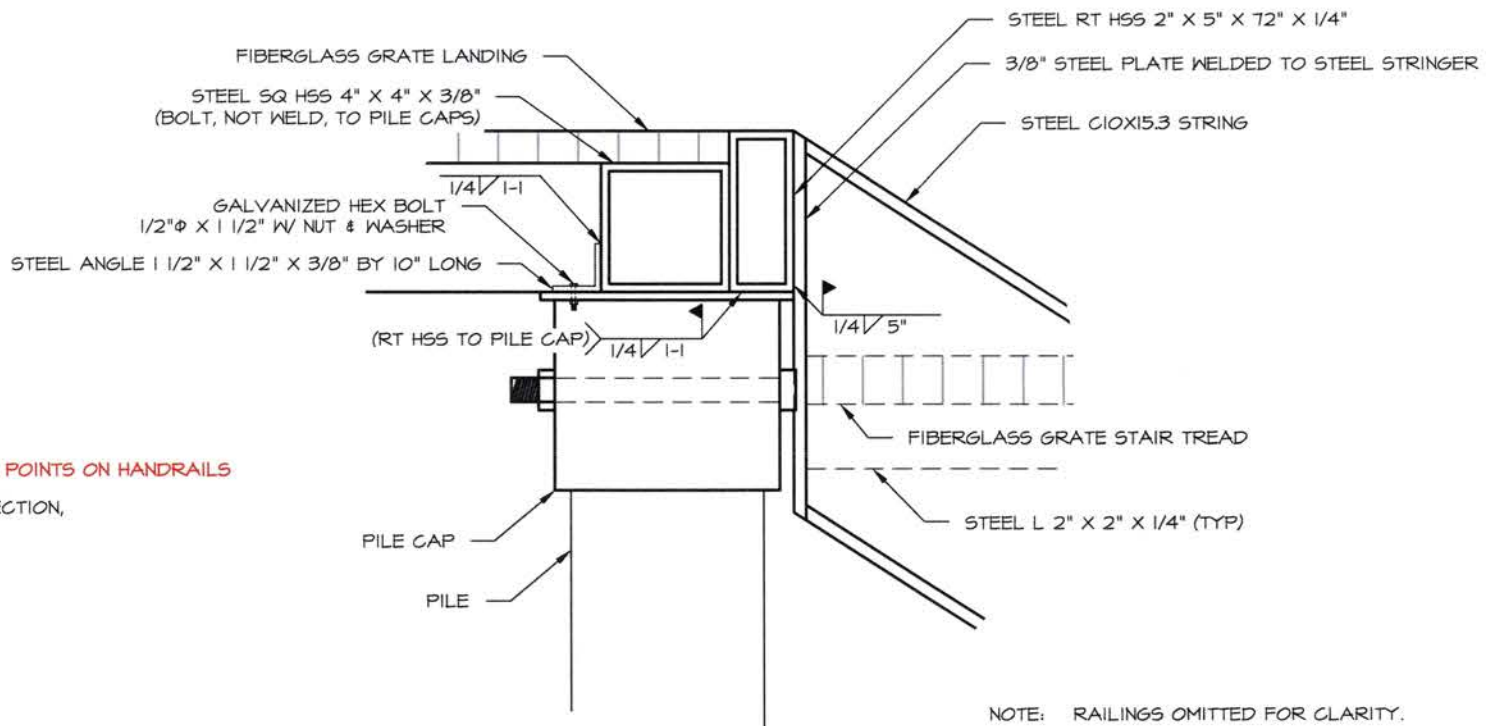


7 ALUMINUM BOTTOM STAIR TREAD  
DETAIL

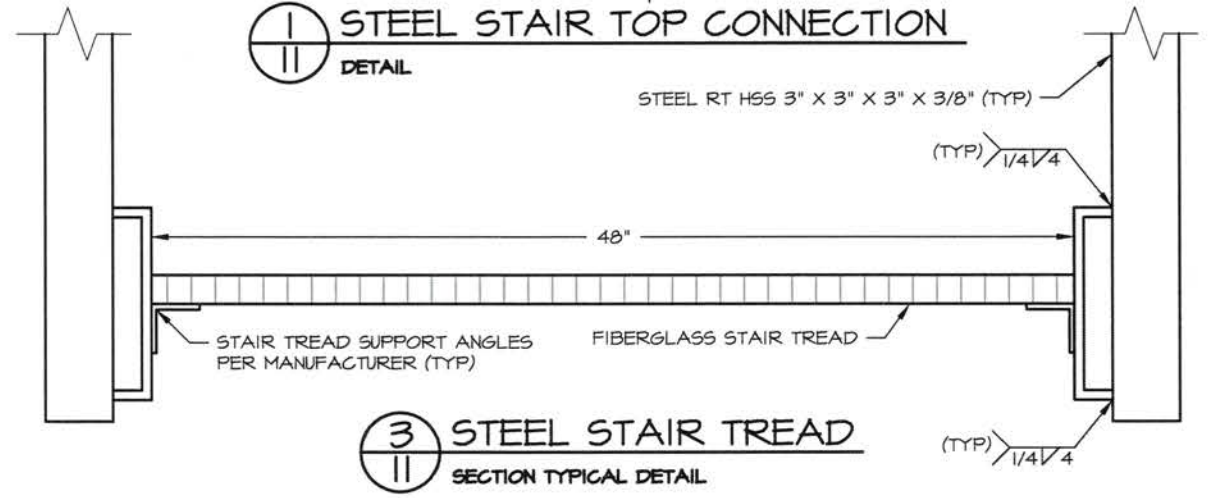




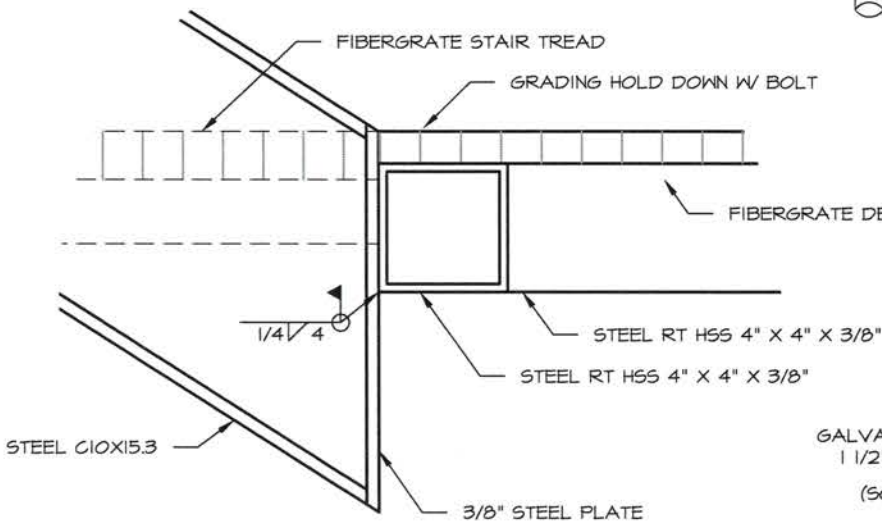
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ELEVATION



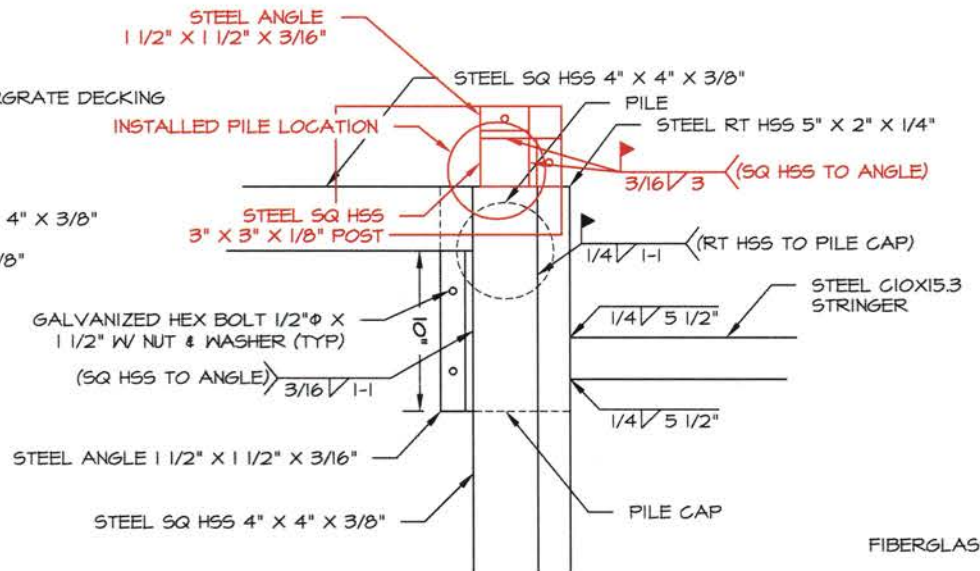
1 STEEL STAIR TOP CONNECTION  
DETAIL



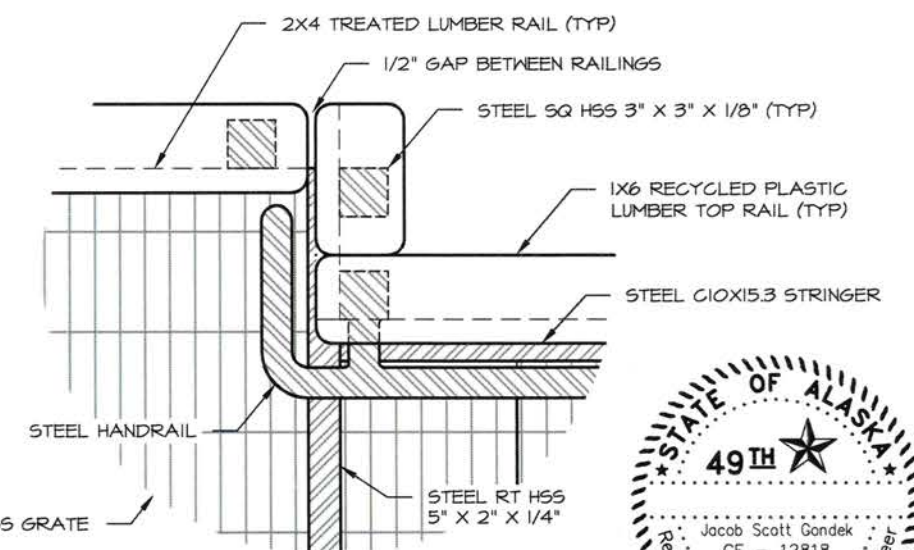
3 STEEL STAIR TREAD  
SECTION TYPICAL DETAIL



4 STEEL STAIR BOTTOM CONNECTION  
ELEVATION DETAIL



5 STEEL STAIR CORNER FRAME  
PLAN DETAIL



6 STEEL STAIR CORNER OVERVIEW  
PLAN DETAIL

NOTE: RAILINGS OMITTED FOR CLARITY.

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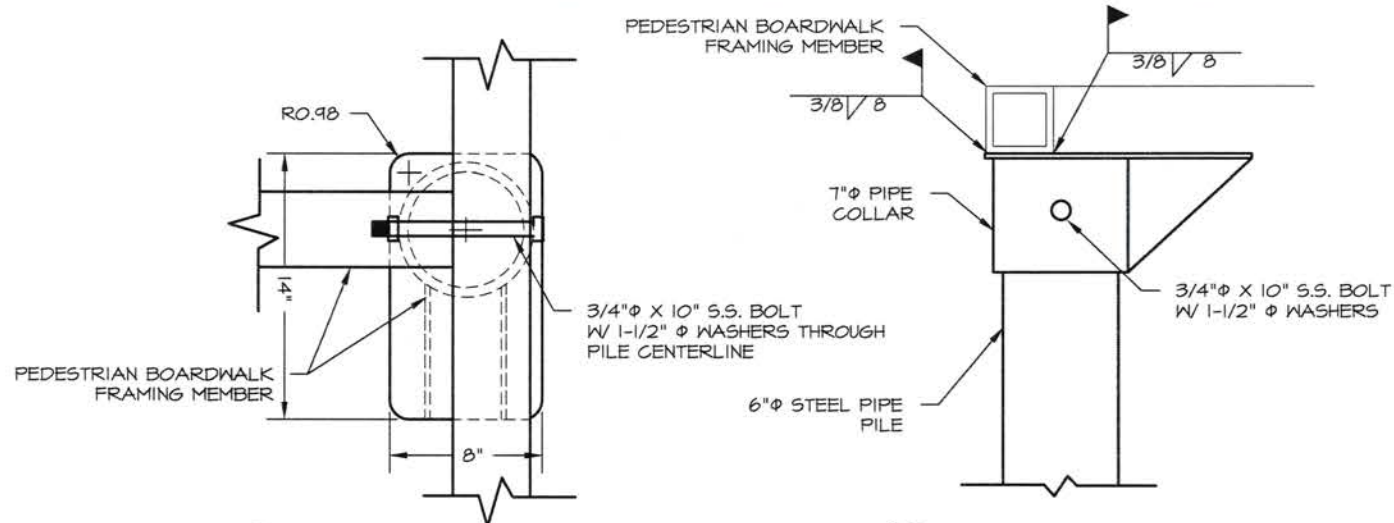


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 KASLOF RIVER SRS  
 RIVERBANK RESTORATION  
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 STEEL STAIR DETAILS



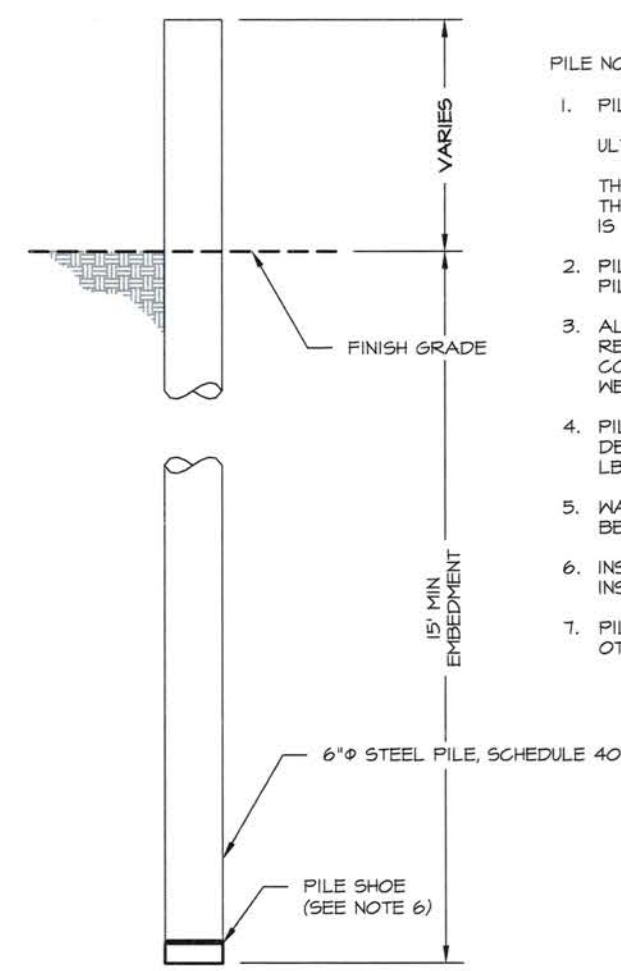
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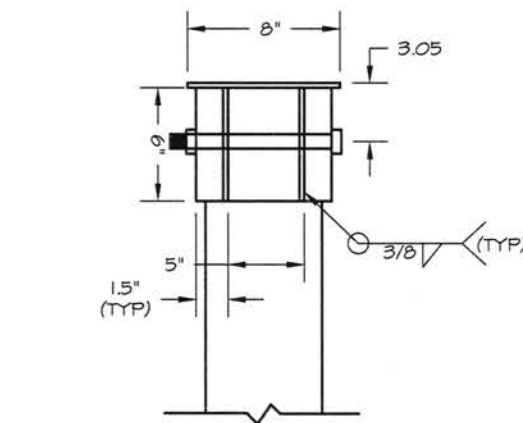
1 PILE CAP TYPICAL  
12 DETAIL

2 PILE CAP TYPICAL  
12 DETAIL

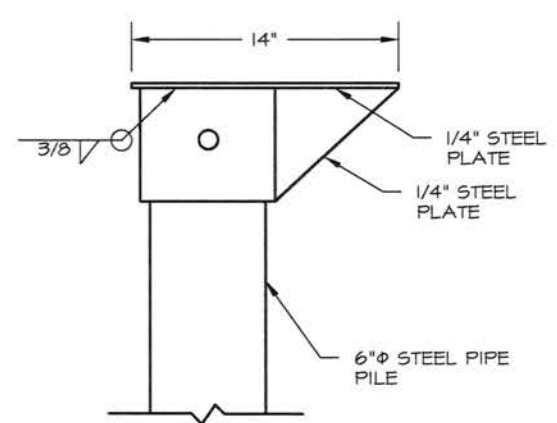


5 STEEL PILE  
12 PROFILE

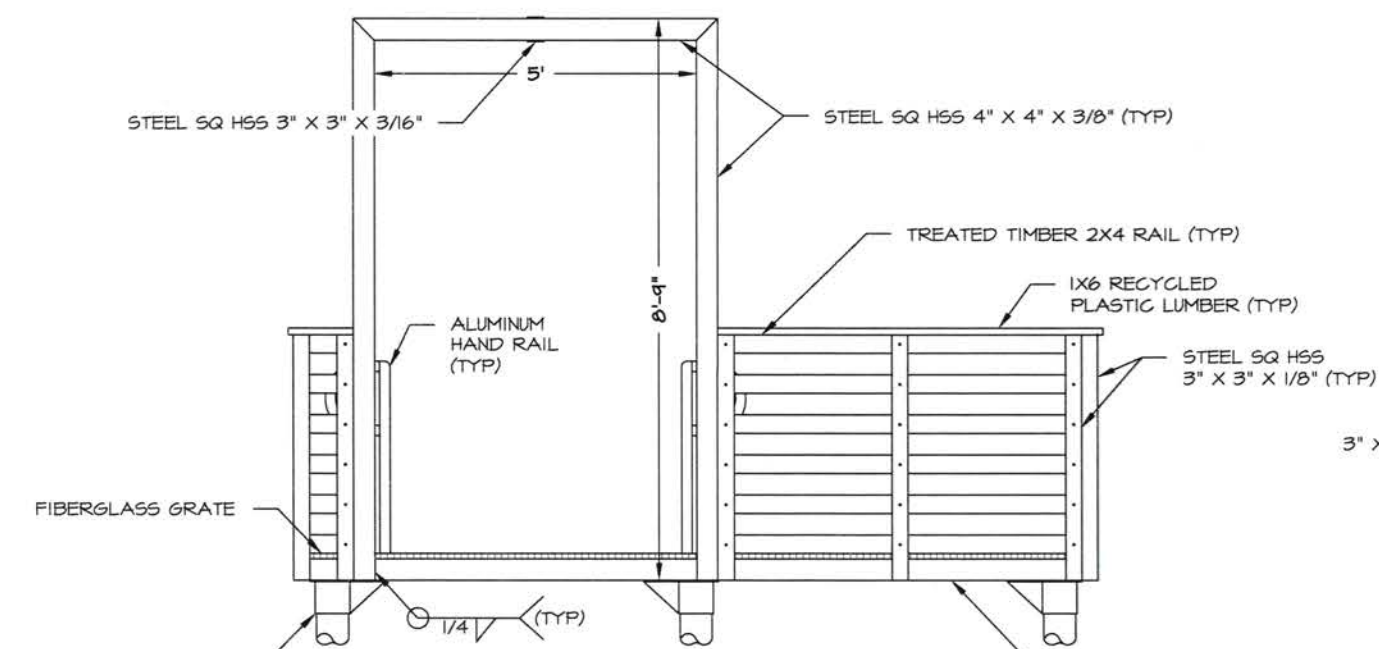
- PILE NOTES:
1. PILE DESIGN LOADS (UNFACTORED):  
ULTIMATE BEARING CAPACITY = 8,000 LBS.  
THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF THE ACTUAL PILE LOADS ARE GREATER THAN WHAT IS INDICATED.
  2. PILES SHALL BE DRIVEN AN ENGINEER APPROVED PILE DRIVER.
  3. ALL WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE AWS STRUCTURAL WELDING CODE, AWS D1.1 PUBLISHED BY THE AMERICAN WELDING SOCIETY.
  4. PILES SHALL BE DRIVEN TO A MINIMUM OF 15 FT DEPTH & AN ULTIMATE BEARING CAPACITY OF 8,000 LBS.
  5. WAIT 72 HOURS MINIMUM AFTER PILE INSTALLATION BEFORE APPLYING LOADS TO THE PILE.
  6. INSTALL PILE SHOE PER MANUFACTURERS INSTRUCTIONS.
  7. PILES SHALL BE DRIVEN OPEN ENDED UNLESS OTHERWISE APPROVED BY THE ENGINEER.



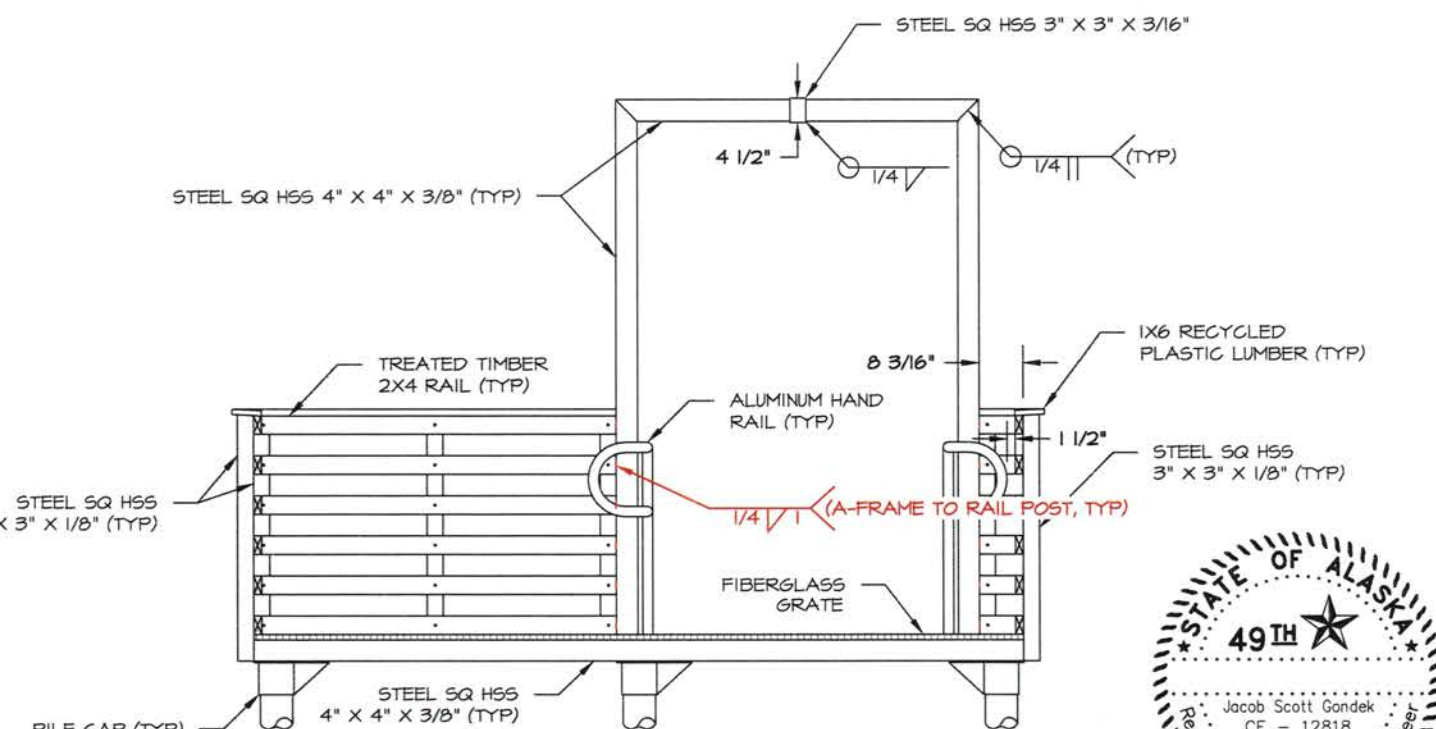
3 PILE CAP TYPICAL  
12 DETAIL



4 PILE CAP TYPICAL  
12 DETAIL



6 STEEL A-FRAME  
12 ELEVATION FACING EXTERIOR



7 STEEL A-FRAME  
12 ELEVATION FACING INTERIOR

NOTE: STAIRS OMITTED FOR CLARITY.

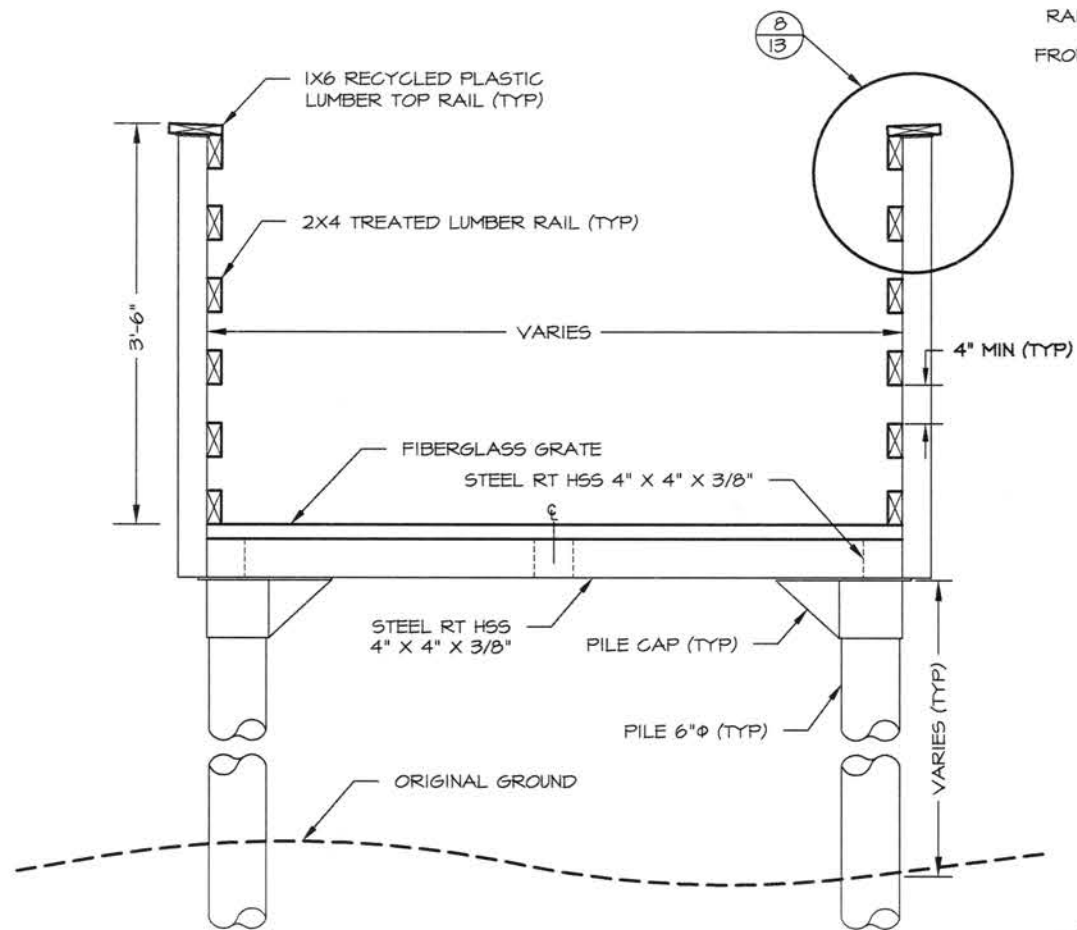


STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
KASLOF RIVER SRS  
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PILE & A-FRAME  
DETAILS

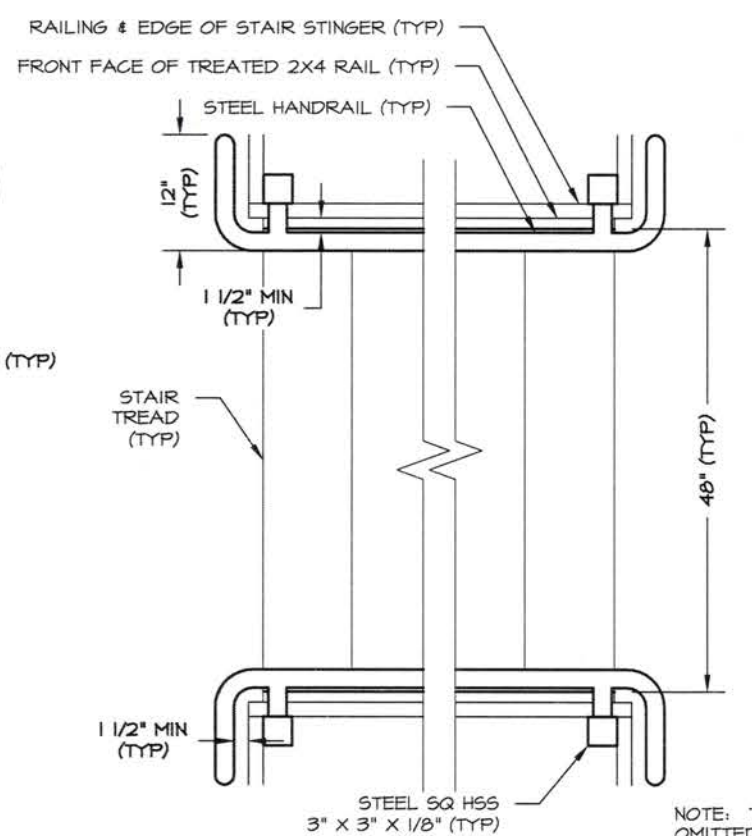


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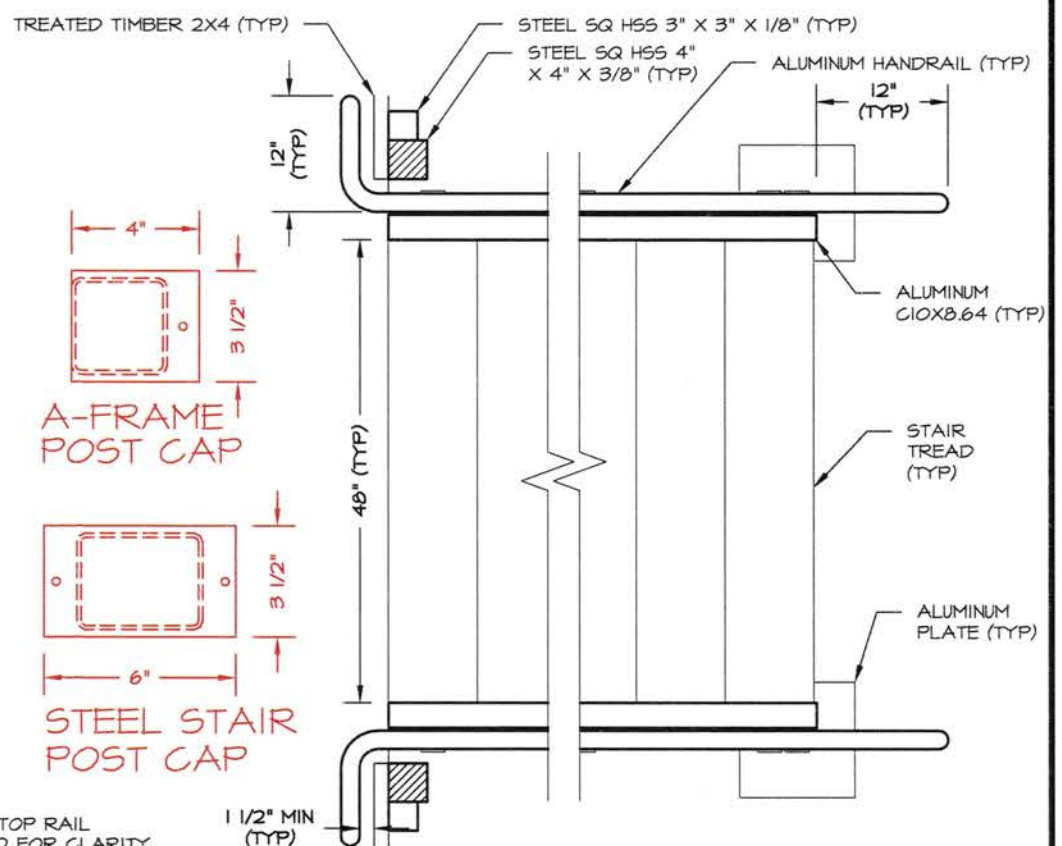
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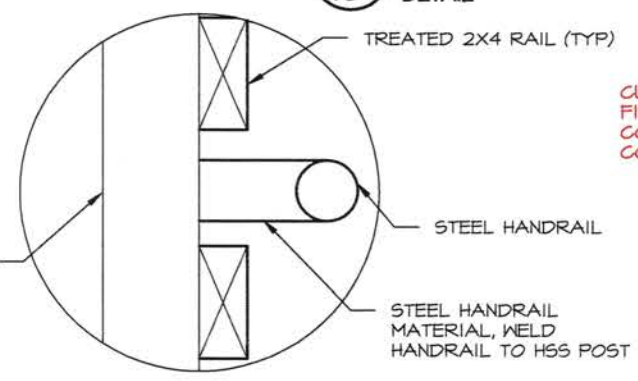
**1**  
 13  
 ELP WALKWAY FRAME  
 DETAIL



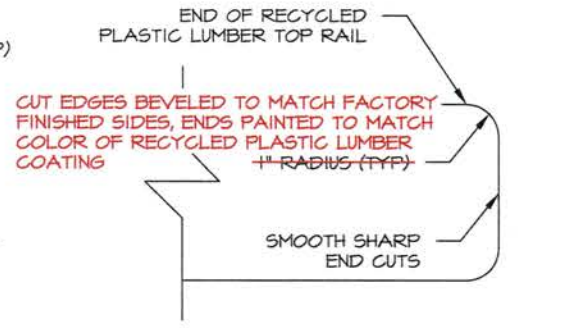
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 STEEL STAIR RAIL  
 DETAIL



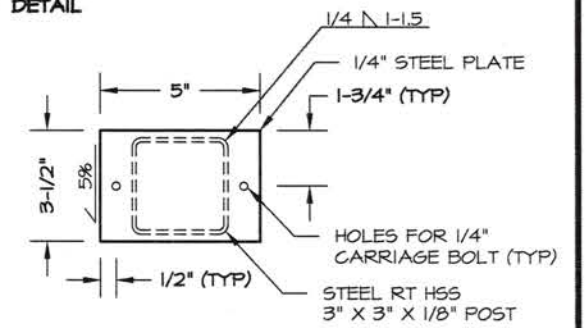
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 13  
 ALUMINUM STAIR RAIL  
 DETAIL



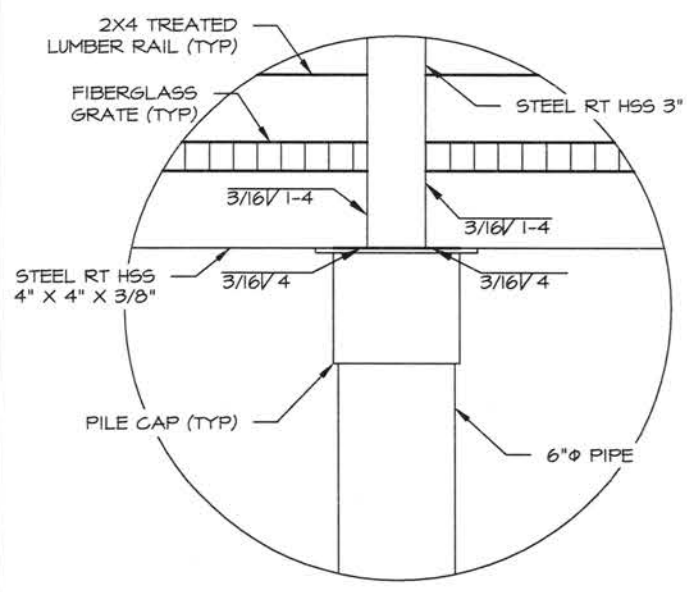
**4**  
 13  
 STEEL HANDRAIL CONNECTION  
 ELEVATION SECTION DETAIL



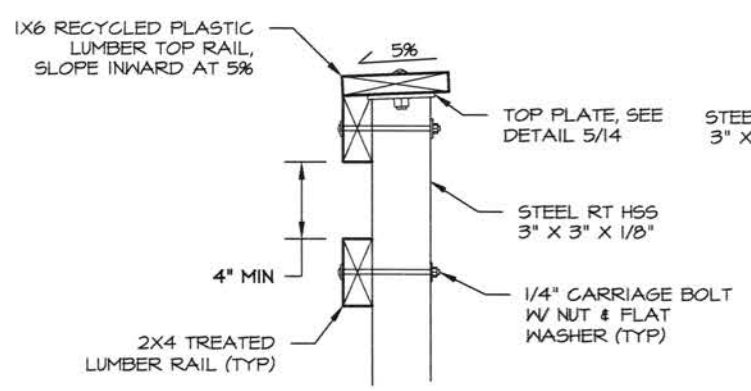
**5**  
 13  
 TOP RAIL ENDS  
 DETAIL



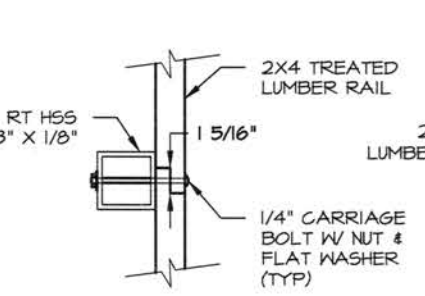
**6**  
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 STEEL HSS POST CAP  
 DETAIL



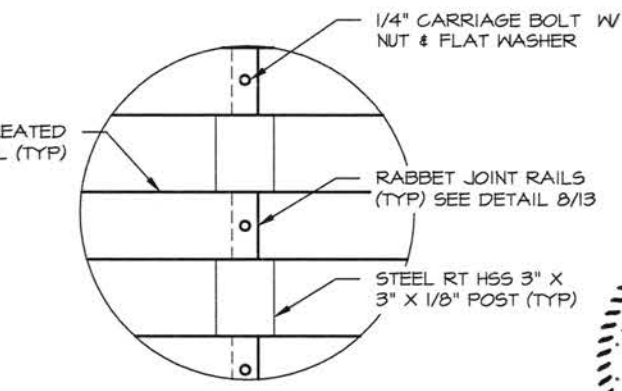
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 ELP WALKWAY FRAME  
 DETAIL



**8**  
 13  
 RAILING  
 DETAIL



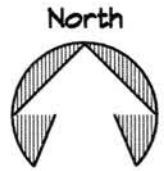
**9**  
 13  
 RABBET JOINT  
 DETAIL



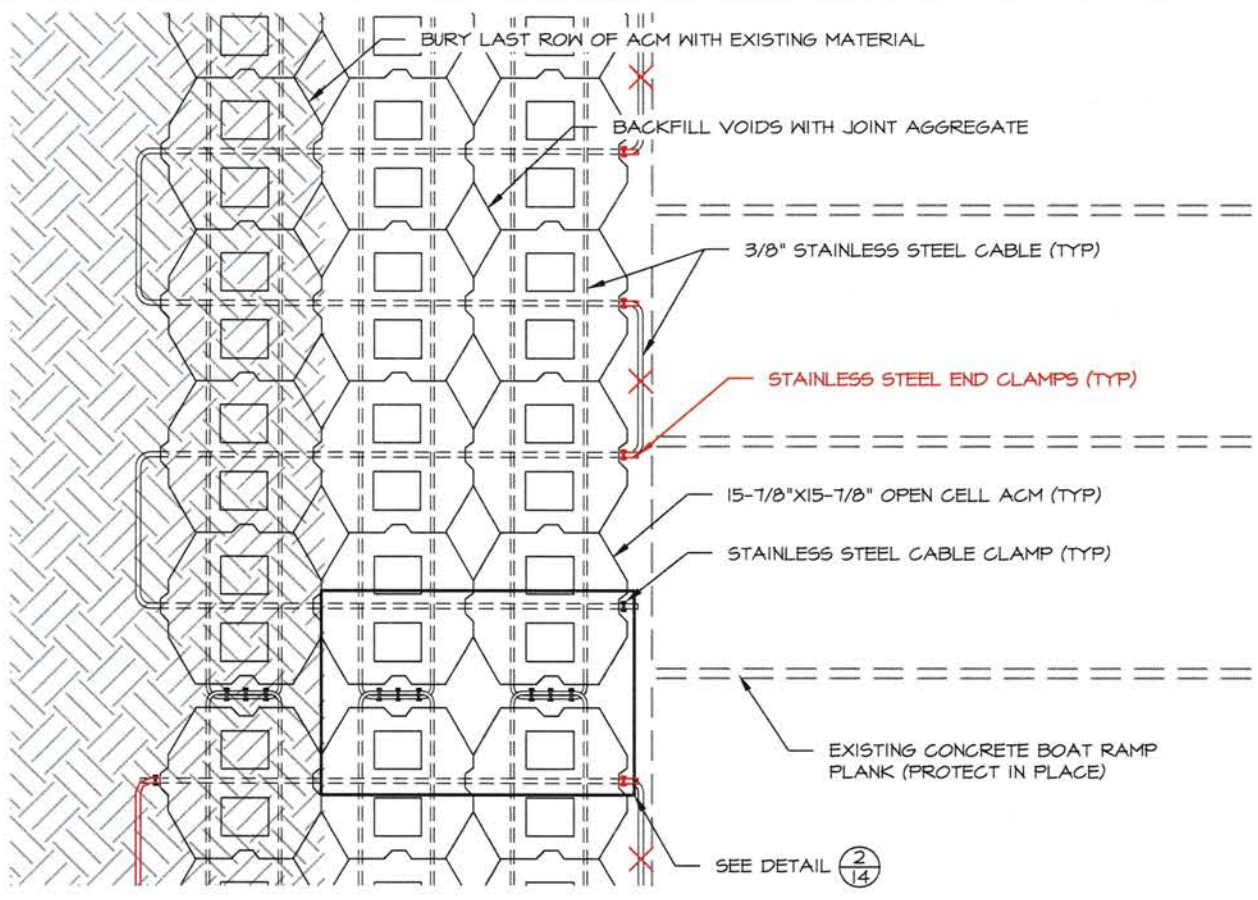
**10**  
 13  
 RAILING CONNECTIONS  
 DETAIL

CUT EDGES BEVELED TO MATCH FACTORY FINISHED SIDES, ENDS PAINTED TO MATCH COLOR OF RECYCLED PLASTIC LUMBER COATING  
 1" RADIUS (TYP)  
 SMOOTH SHARP END CUTS

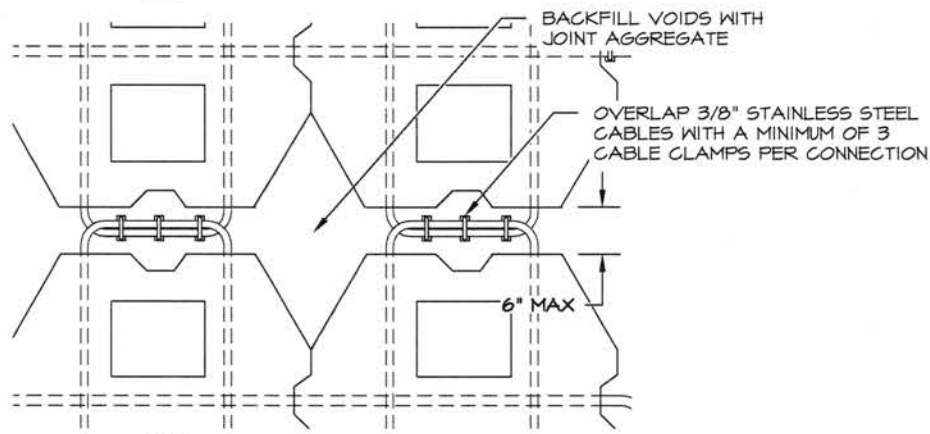




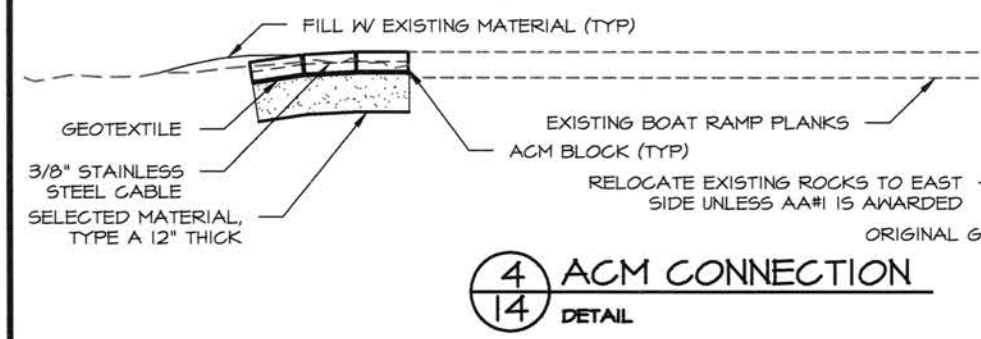
- NOTES:  
 1. ROCKS NOT SHOWN FOR CLARITY  
 2. ASSUMED ACM BLOCK HEIGHT & WIDTH 15 7/8" X 15 7/8"  
 3. ROUND TO THE NEAREST WHOLE BLOCK TO AVOID CUTTING BLOCKS.



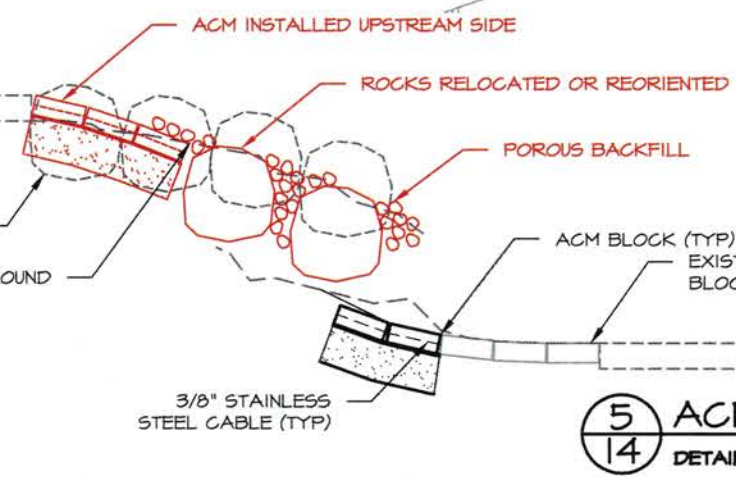
1 ACM ARMORING  
 14 PLAN



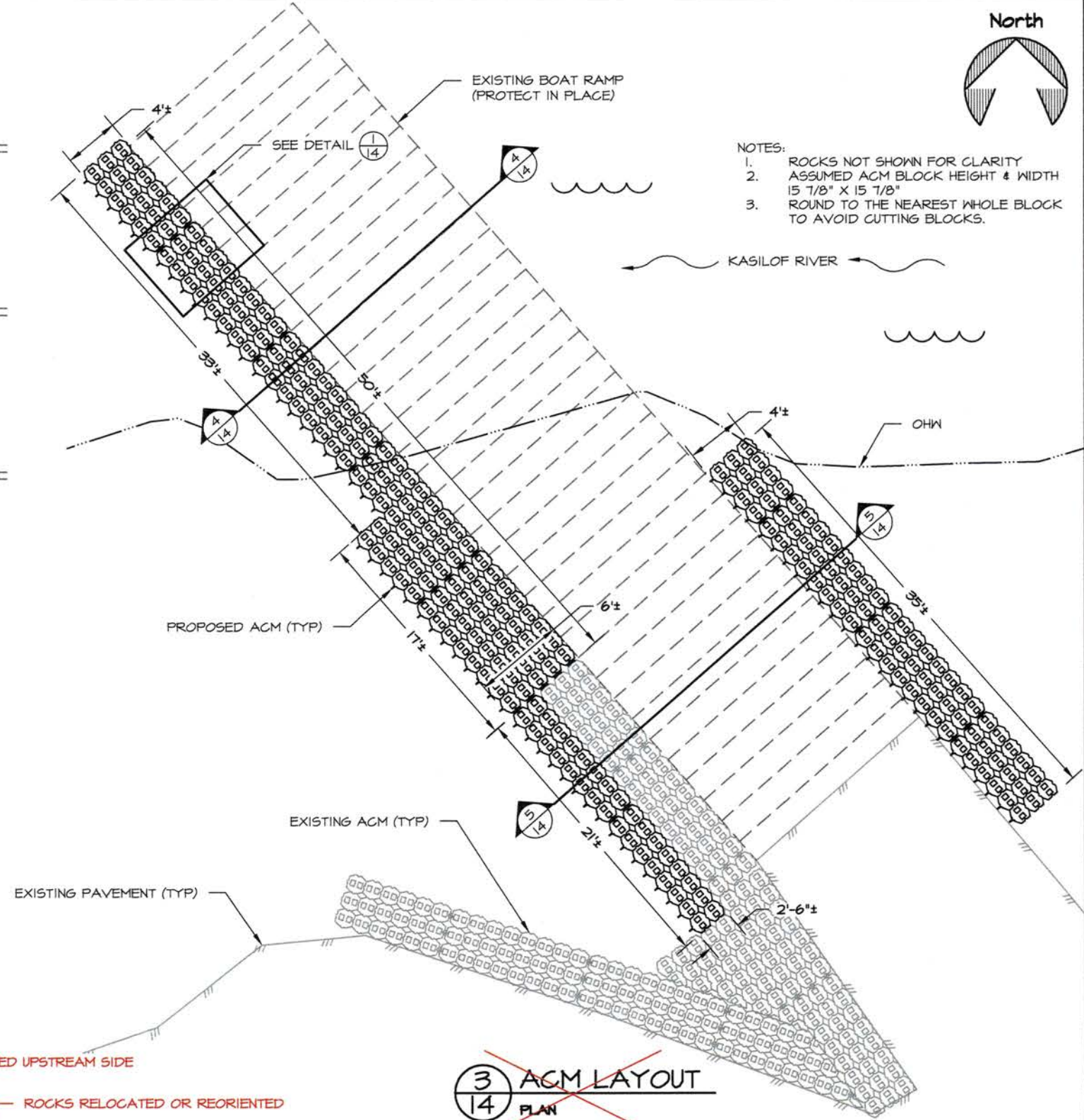
2 ACM CONNECTION  
 14 DETAIL



4 ACM CONNECTION  
 14 DETAIL



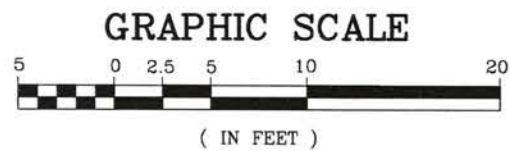
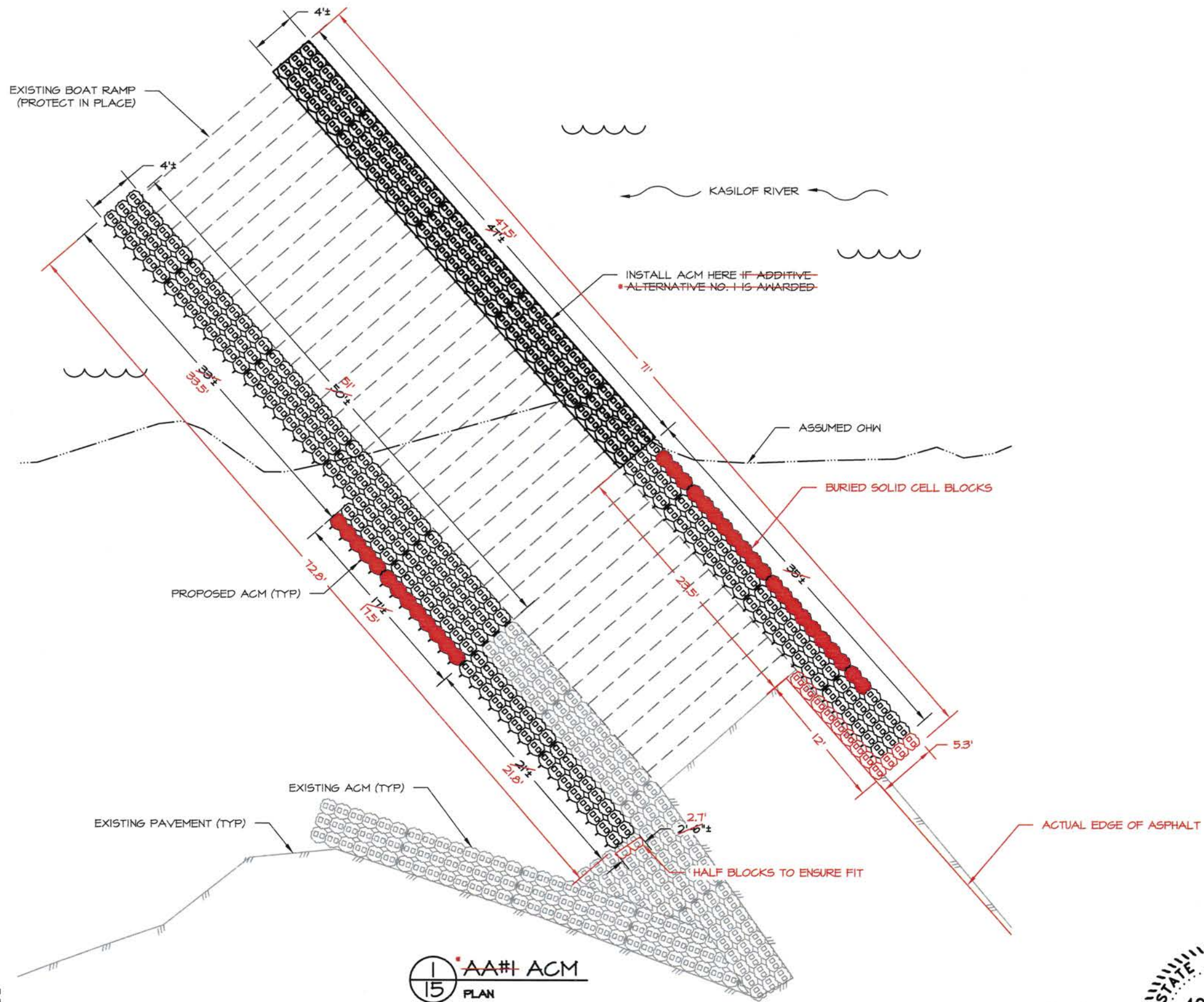
5 ACM CONNECTION  
 14 DETAIL



3 ACM LAYOUT  
 14 PLAN

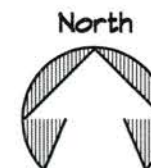
\*SEE PAGE 15 FOR INSTALLED ACM LAYOUT





15 AA#1 ACM  
PLAN

\*MATERIAL ADDED BY OVERRUNNING  
ITEM 653(3) QUANTITY



STATE OF ALASKA DEPARTMENT OF NATURAL RESOURCES  
 AA#1  
 KASILOF RIVER SRS  
 RIVERBANK RESTORATION  
 PROJECT No. 73057-1  
 ARTICULATED CONCRETE MAT  
 DETAIL



PREPARED: RDR  
 DRAWN: RDR  
 REVIEWED: JGG  
 DATE: MAR 2016

SHEET  
 15  
 OF 15 SHEETS